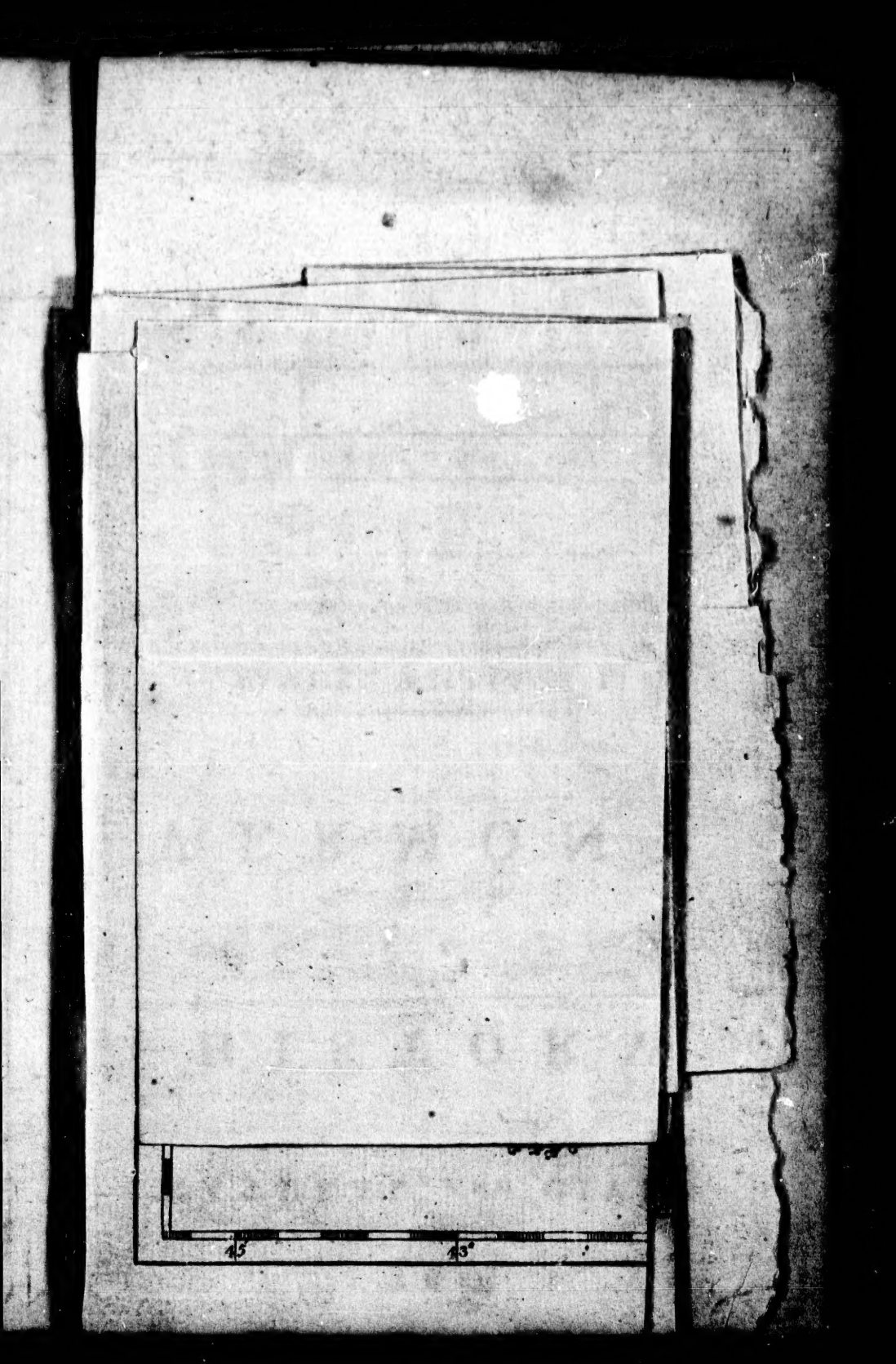

45
43

4476
106
5

THE

NATURAL AND CIVIL HISTORY OF VERMONT.

BY SAMUEL WILLIAMS, LL. D.
MEMBER OF THE METEOROLOGICAL SOCIETY IN GERMANY, OF THE PHILOSOPHICAL SOCIETY IN PHILADELPHIA, AND OF THE ACADEMY OF ARTS AND SCIENCES IN MASSACHUSETTS.

Published according to ACT *of* CONGRESS.

PRINTED AT *WALPOLE*, NEWHAMPSHIRE,
BY ISAIAH THOMAS AND DAVID CARLISLE, JUN.
Sold at their BOOKSTORE, in *Walpole*, and by said THOMAS, at his BOOKSTORE, in *Worcester*.

MDCCXCIV.

PART OF CANADA
River La Cole
Isle au Noix
Missisque River
Huntsburgh
Berkshire
Richford
Carthage
Derby
Holland
Norton
Canaan
Norfolk
Averill
ESSEX
Lemington
Lewis
Minehead
Wenlock
Random
Brunswick
Ferdinand
Ealingaven
Maidston
COUNTY
Granby
Guildhall
Victory
Lunenburgh
Concord
Littleton
Barnet
Haverhill
Newbury
Corinth
Bradford
Vershire
Fairlee
Topsham
Orange
Williamstown
Washington
Chelsea
Tunbridge
Randolph
Brookfield
Berlin
Montpelier
Marshfield
Calais
Woodbury
Elmore
Morristown
Wolcott
Greensboro
Hardwick
Hydepark
Craftsbury
Johnston
Eden
Lutterloh
Barton
Westmore
Navy
Derby
Salem
Coventry
Enosburgh
Montgomery
Welfield
Dunmarston
Woodbridge
Carthage
Richford
Berkshire
Huntsburgh
Highgate
Alburgh
Lake Champlain
South Hero
North Hero
Swanton
Sheldonvale
Smithfield
St Albans
Fairfield
Georgia
Fletcher
Fairfax
Milton
Cambridge
Westford
Sterling
Underhill
Essex
Colchester
Burlington
Jericho
Williston
Shelburne
Bolton
Huntington
Hinesburgh
Charlotte
Duxbury
Middlesex
Moretown
Waterbury
Stowe
Cabot
Danville
Peacham
Walden
Hardwick
Hopkinton
Lyndon
Burke
Sheffield
Billymead
Navy
Browington
Irasburgh
Barton
Westmore
Random
Wenlock
Minehead
Lewis
Averill
Norton
Canaan
Norfolk
Derby Holland
Dunmarston
Salem
Coventry
Welfield
Montgomery
Enosburgh
Carthage
Woodbridge
Richford
Berkshire
Huntsburgh
Highgate
Alburgh
Lake Champlain
South Hero
North Hero
Swanton
Sheldonvale
Smithfield
St Albans
Fairfield
Georgia
Fletcher
Fairfax
Milton
Cambridge
Johnston

A Map of the STATE of VERMONT by J. Whitelaw 1793
Scale of Miles
PART of THE STATE of MASSACHUSETTS.
PART OF THE STATE OF NEW YORK
PART OF THE STATE OF NEW HAMPSHIRE
ADDISON COUNTY
RUTLAND COUNTY
WINDSOR COUNTY
WINDHAM COUNTY
BENNINGTON COUNTY
Dartmouth College
Charleston
Bristol
Middlebury
Bridport
Shoreham
Orwell
Brandon
Fitzfield
Pittsford
Hubbardton
Castleton
Poultney
Wells
Granville
Hartford
Woodstock
Hartland
Reading
Windsor
Springfield
Chester
Andover
Rockingham
Athens
Westminster
Putney
Fulham
Marlboro
Wilmington
Brattleboro
Guilford
Halifax
Hinsdale
Pawlet
Rupert
Dorset
Sandgate
Arlington
Manchester
Shaftsbury
Bennington
Hoosick
Pownal
Hudsons River
Battenkill
Connecticut River
Lake Champlain
Newhaven
Addison
Weybridge
Panton
Vergennes
Northfield
Williamstown
Topsham
Newbury
Haverhill
Corinth
Bradford
Chelsea
Tunbridge
Strafford
Thetford
Fairlee
Vershire
Randolph
Braintree
Brookfield
Kingston
Bethel
Royalton
Sharon
Norwich
Barnard
Pomfret
Hartford
Kingston
Bridgewater
Plymouth
Ludlow
Cavendish
Weathersfield
Grafton
Rockingham
Westminster
Putney
Newfane
Wardsboro
Halifax
Guilford
Hinsdale
Townshend
Londonderry
Sandgate
Arlington
Manchester
Shaftsbury
Pownal
Bennington
Hoosick
Rupert
Dorset
Granville
Hubbardton
Castleton
Poultney
Wells
Middleton
Pittsford
Brandon
Orwell
Sudbury
Leicester
Whiting
Salisbury
Cornwall
Goshen
Middlebury
Bridport
Shoreham
Addison
Panton
Vergennes
Newhaven
Bristol
Lincoln
Weybridge
Middlebury
Bridport
Shoreham
Orwell
Brandon
Fitzfield
Pittsford
Hubbardton
Castleton
Poultney
Wells
Granville
Hartford
Woodstock
Hartland
Reading
Windsor
Springfield
Chester
Andover
Rockingham
Athens

973.743

To the CITIZENS of the STATE

OF

VERMONT,

The following OBSERVATIONS

ON THEIR

NATURAL and CIVIL

HISTORY,

Are humbly Inscribed,

As a Testimony of Respect

For their many Virtues,

As an Argument to Promote

A more particular Acquaintance

With their own Affairs,

And with the most ardent Wishes

For their further Improvement

And Prosperity,

By their obedient

and humble Servant,

The AUTHOR.

Rutland, July 15, 1794.

TO THE CITIZENS OF THE STATE

OF

VERMONT,

THE FOLLOWING OBSERVATIONS

ON THEIR

NATURAL AND CIVIL

HISTORY,

Are humbly INSCRIBED;

As a TESTIMONY of RESPECT

For *their* many VIRTUES,

As an ATTEMPT to Promote

A more particular ACQUAINTANCE

With their own AFFAIRS,

And with the most ardent WISHES

For their further IMPROVEMENT

And PROSPERITY,

By their obedient

and humble Servant,

The AUTHOR.

Rutland, July 16, 1794.

PREFACE.

THREE centuries have paſſed away ſince America was firſt diſcovered by *Columbus*. From that time until now, the affairs of America have engaged the attention of hiſtorians and philoſophers.—The natural productions of this continent, have been one object of general inquiry. Among the Spaniſh writers, there are ſome good eſſays on the natural hiſtory of the ſouthern parts of America. In Canada, ſome of the phyſicians and jeſuits were attentive to the natural productions of that part of the continent; and have left ſome valuable pieces on the natural hiſtory of Newfrance. This kind of knowledge was not much attended to, by the firſt ſettlers of the Britiſh colonies; and we have but few of their ancient writings, in which it was contemplated at all. Obliged to depend upon tranſient and partial accounts, the beſt writer upon natural hiſtory, M. de Buffon, has fallen into many miſtakes reſpecting the natural productions of America, which, more accurate obſervations would have corrected. The ſubject inſtead of being fully explored, is yet a treaſure but little examined.

The

The Man of America was an object still more curious and important. But the age in which the first discoveries and settlements were made, was not enough enlightened, to afford either accurate or impartial observations on the manners, customs, language, abilities, or state of society, among the Indians. Prejudiced by their sordid manners, and enraged by their barbarities, the men of Europe never looked for any thing good in such men: And while interest and revenge joined to destroy that unhappy race, but few were able to consider their customs or rights with calmness, or dared to say any thing in their favour. It is not more than half a century, since this subject has been properly attended to by philosophers: And their conclusions have been of the most opposite and contrary kinds. Some have with great zeal advanced, that the perfection of man was to be found in the savage state; while others have as warmly contended, that this was the lowest state of degradation and abasement, to which the human race can possibly be reduced. Such opposite and contrary systems make it necessary to examine this part of the natural history of man, with great care and impartiality; that we may distinguish what was valuable in that stage of society, and what was disadvantageous and degrading.

An object of still higher magnitude and importance, has been presented to our view by the American Revolution. The first settlers in the British colonies were left in a great measure by their sovereigns,

sovereign, to take care of themselves. The only standard which they could take, while they were clearing the woods and forming their settlements, was that of equality, industry, and economy. In such a situation every thing tended to produce, and to establish the spirit of freedom. Their employments, customs, manners, and habits; their wants, dangers, and interests, tended to unite the settlers, thereby with every other circumstance in their situation, operated with a steady and certain tendency, to preserve that equality and freedom, which nature had made.—This spirit of freedom was in some degree checked by the subsidiary interpositions of royal authority. But these were too irregular and contradictory, to become matters of veneration, to alter the moral feelings of men, or to change the natural course and tendency of things: And while the ministers of kings were looking into their laws and records, to decide what should be the rights of men in the colonies, nature was establishing systems of freedom in America, which they could neither comprehend, or discern. The American Revolution explained the business to the world, and served to confirm what nature and society had before produced.

In this way assumed their rank among the nations of the earth, the states of America now present to the world a new state of society; founded on principles, containing arrangements, and producing effects, not visible in any nation before. The uncommon and increasing prosperity which has attended

tended it, has ascertained its spirit and tendency: The people are distinguished by the spirit of inquiry, industry, economy, enterprise, and regularity: The government is dependent upon, but guides, and advances the people: And the whole country is rapidly increasing in numbers, extent, wealth, and power. The highest perfection and felicity, which men is permitted to hope for in the present life, may rationally be expected in such a state of society: And it becomes of course the object of universal inquiry and attention.

To represent the state of things in America in a proper light, particular accounts of each part of the federal union seem to be necessary, and would answer other valuable purposes. An able historian, the Reverend Dr. *Belknap*, has obliged the world with the History of *Newhampshire*. The following treatise is designed to describe the operations of nature and society, in the adjacent state of *Vermont*. This is the youngest of the states, an inland country, and now rapidly changing from a vast tract of uncultivated wilderness, to numerous and extensive settlements. In this stage of society, industry and economy seem to produce the greatest effects, in the shortest periods of time.

THE manner in which the work has been executed, I am apprehensive will require much candour in the reader. In the variety of subjects which have come under contemplation, I cannot flatter myself, that I have been free from errors and

and miſtake: And the reaſon why ſeveral of the ſubjects are ſo imperfectly conſidered, was becauſe I had not the ability or information to ſtate them otherwiſe.

THE American war conſidered with reſpect to its cauſes, operations, or effects, preſents to our view ſome of the moſt important events, which have taken place in modern times: But neither of theſe particulars can be comprehended in the hiſtory of any particular ſtate. To give ſuch an imperfect view of this ſubject as could be properly contained in the hiſtory of Vermont, did not appear eligible. No further accounts therefore of the war, are inſerted, than what appeared neceſſary to explain the ſubject, which I had more particularly in view.

THE controverſies which took place between the ſtates of Vermont, Newyork, and Newhampſhire, were of the moſt dangerous nature; and they were agitated for a while, with a violence greatly unfavourable to the peace and ſafety of the whole union. Moſt of the wars which have taken place among mankind, have been occaſioned by diſputes reſpecting territory and juriſdiction: And however juſt or proper it might be for any nation, to give up part of its territory and dominion to its neighbours, ſuch a ſacrifice was ſcarcely ever made without compulſion and force.—To have expected Newyork would voluntarily give up part of her territory, when the deciſions of the king, and the law were in her favour, was to ex-

poſe that which is never done by any ſovereign or nation, while they have power to prevent it. To have expected the people of Vermont would voluntarily ſubmit to a government, which ſet aſide their titles to the lands which they had purchaſed of the crown, and made valuable by their labours and ſufferings, was to look for that, which no people ever ought to ſubmit to, if it is in their power to avoid it.—When the ſtates of Newyork, Newhampſhire, and Vermont, had engaged in a controverſy of this kind, it was more agreeable to the courſe of human affairs to expect it would produce a civil war, than to look for ſo much wiſdom and moderation among either of the contending parties, as to prevent it.

IN relating theſe controverſies, I have felt a conſtant anxiety, leſt I ſhould miſrepreſent the proceedings of either of thoſe ſtates. I had not the intereſts or the paſſions which thoſe parties produced, to guard againſt; nor am I apprehenſive that prejudice has miſled me, in relating any of thoſe matters. But it is not improbable that I have not had complete information in ſome particulars, reſpecting thoſe complicated controverſies; and may have miſtaken the views of parties, in ſome of their leading tranſactions. If this ſhould be found to be the caſe, it will give me great pleaſure to receive ſuch further information, as ſhall enable me to correct any miſtakes. Thoſe who point out to us our errors, perform the ſame friendly office, as thoſe who help us to new truths.

THE

THE moſt important of all our philoſophical ſpeculations are thoſe which relate to the hiſtory of man. In moſt of the productions of nature, the ſubject is fixed, and may always be found and viewed in the ſame ſituation. And hence a ſteady courſe of obſervation, ſerves to diſcover and aſcertain the laws by which they are governed, and the ſituation they will aſſume in other periods of time. It is probable the actions and affairs of men are ſubject to as regular and uniform laws, as other events: And that the ſame ſtate of ſociety will produce the ſame forms of government, the ſame manners, cuſtoms, habits, and purſuits, among different nations, in whatever part of the earth they may reſide. Monarchy, freedom, ſuperſtition, truth, and all the general cauſes which actuate mankind, ſeem every where to bear the ſame aſpect, to operate with the ſame kind of influence, and to produce ſimilar effects, differing not in their nature and tendency, but only in the circumſtances and degrees, in which they influence different nations.—But nothing is ſtationary, nothing that depends upon the ſocial ſtate, is ſo unalterably fixed, but that it will change and vary with the degradation or improvement of the human race. And hence, while the nature of man remains unaltered, the ſtate of ſociety is perpetually changing, and the men of one age and country, in many reſpects appear different from thoſe of another. And as men themſelves are more or leſs improved, every thing that conſtitutes a part

of

of the feveral ſtates will bear a different appearance among different nations, and in the ſame nation in different circumſtances, and in different periods of time.—To aſcertain what there is that peculiar and diſtinguiſhing in the ſtate of ſociety in the federal Union, to explain the cauſes which have led to this ſtate, to mark its effect upon human happineſs, and to deduce improvements from the whole, are the moſt important objects which civil hiſtory can contemplate in America; And they are objects, every where much uſeful more, than any refinements, diſtinctions, or diſcoveries, merely ſpeculative.

I have wiſhed to keep ſuch objects in view, in conſidering the ſtate of ſociety in this part of the continent. But it is with diffidence that I ſubmit the attempt to the view of the public. The diſpoſition of America is to favour ſuch attempts and publications, as are adapted to promote any valuable public purpoſe: But ſpeculative and uſeleſs eſſays often miſlead the attention of a people, whoſe main object is the proſperity and improvement of their country. The public ſentiment will be a juſt direction, among which of theſe, the following work ought to be placed.

CONTENTS.

CONTENTS.

CHAP. I.

SITUATION, *Boundaries, Area, Soil, and Face of the Country.* 17

CHAP. II.

MOUNTAINS.—*Their Direction, Altitude, Top, Caverns, the origin of Springs and Rivers.* 21

CHAP. III.

RIVERS AND LAKES.—*The Situation, Channels, Intervales, Course, Depths, and Effects of the Rivers. An Account of Lake Champlain and Memphremagog.* 30

CHAP. IV.

CLIMATE.—*An Account of the Temperature, Winds, Rain, Snow, and Weather. The Change of Climate which has attended the Cultivation of the Country.* 42

CHAP. V.

VEGETABLE PRODUCTIONS.—*Forest Trees, Esculent and Medicinal Vegetables. Remarks on the Magnitude, Number, Age, Propagation, Ennition of Air, Heat, and Light of the Trees.* 66

CHAP. VI.

NATIVE ANIMALS.—*An Account of the Quadrupeds; with Observations on their Enumeration, Origin, Migration, Species, Magnitude, Disposition, and Multiplying Power. The Birds, Fishes, Reptiles and Insects.* 81

CHAP. VII.

ORIGINAL INHABITANTS.—*The Employments, Civil Government, System of War, Education, Manners, and Customs of the Indians; the Advantages, and Disadvantages of the Savage State.* 138

CHAP.

CHAP. VIII.

Observations on the Origin of the Indians, their Antiquity, Progress of Society, and Tendency to Dissolution. 187

CHAP. IX.

First Settlement of Vermont by the English. Grants from Newhampshire. Proceedings of Newyork. Violent Opposition of the Settlers. American War. Declaration of the Freedom and Independence of the State. 210

CHAP. X.

Proceedings of Newyork. Resolves of Congress. Controversy with Newhampshire. Claims of Newhampshire, Newyork, and Massachusetts. Appointment of Commissioners, to confer with the Inhabitants. Interposition of Congress. Conduct of Vermont. Measures pursued by Congress. Partial Claims of Vermont. Proceedings and Views of the British Generals, and Ministers. Resolutions of Congress. Proceedings of Vermont, Newyork, and Newhampshire. Address of General Washington. Proceedings of Vermont. Votes of Congress. Remarks on the Design, and Effect of those Votes. 224

CHAP. XI.

Disturbances in Vermont. Resolutions of Congress. Remonstrances against the proceedings of Congress. Peace with Great-Britain. Disinclination of Vermont to an Union with the Confederated States. New federal Constitution. Proposals from Newyork. Settlement of the Controversy with that State. Admission of Vermont into the federal Union. Political Effects of these Controversies. 290

CHAP. XII.

STATE OF SOCIETY.—*The Employments of the People; Agriculture, Manufactures, Hunting, the Profits of Labour.* 311

CHAP.

CONTENTS

CHAP. XIII. Page.

STATE OF SOCIETY.—*Customs and Manners. Education, early Marriages, Activity, Equality, Economy, and Hospitality of the People.* 824

CHAP. XIV.

STATE OF SOCIETY.—*Religion. Importance of this Principle. Danger of any Control in its Equality of all Denominations. Effect of this Equality. Grants and Laws for the Support of Religion. Extent of Religious Liberty. Connexion of Religion with Science and Education.* 834

CHAP. XV.

STATE OF SOCIETY.—*Nature of the American Government. Constitution of Vermont. Laws. Counties and Courts. Annual Expense of Government. Public Revenue. Militia. Popularity of the Government.* 842

CHAP. XVI.

STATE OF SOCIETY.—*Population; Causes on which this depends. the mean Period of Human Life in the American States. Period of doubling in Vermont, comparative View of Population in New and old Countries.* 860

CHAP. XVII.

STATE OF SOCIETY.—*Freedom: Destroyed in some Countries by the State of Society produced by the Settlement of America. the Cause and Effect of the American War, cannot be preserved by Government, depends on the State and Condition of the People.* 869

APPENDIX.

APPENDIX.

NUMBER I.

An Account of the Variation of the Magnetic Needle, in the Eastern States. 377

NUMBER II.

Observations on the change of Climate in Europe, and other places. 380

NUMBER III.

A Dissertation on the Colours of Men, particularly the state of the Indians of America. 385

NUMBER IV.

The Declaration and Petition of the Inhabitants of the Newhampshire Grants to Congress, announcing the District to be a Free and Independent State. 396

NUMBER V.

The Remonstrance of the Commissioners from Vermont against the Proceedings of Congress, September 22, 1780. 401

NUMBER VI.

Questions proposed by the Committee of Congress to the Agent on the part of Vermont, with the Answers of the Agents, August 28, 1781. 403

NUMBER VII.

An Account of the Ratable Property, and of the Number of the Inhabitants in Vermont, at different Periods of Time. 404

THE

NATURAL AND CIVIL HISTORY OF VERMONT.

CHAP. I.

Situation, Boundaries, Area, Soil, and Face of the Country.

THE ſtate of Vermont is ſituated between 42° 44′ and 45 degrees of north latitude, and between 3° 43′ and 5° 36′ of longitude, eaſt from the meridian of Philadelphia. It is altogether an inland country; ſurrounded by the ſtates of Newhampſhire, Maſſachuſetts, New-york, and the province of Canada: That part of the ſtate of Vermont which is neareſt to the ſea-coaſt, is at the diſtance of ſeventy or eighty miles, from any part of the ocean.

On the south, Vermont is bounded by the state of Massachusetts. This line is forty one miles in length, and was a part of the divisional line between Massachusetts and Newhampshire. It was derived from the decision of a former king of Great-britain; On March 5, 1740, George the second, resolved, "That the northern boundary of the province of Massachusetts, be a similar curve line, pursuing the course of Merrimack river, at three miles distance, on the north side thereof, beginning at the Atlantic ocean, and ending at a point due north of Patucket falls; and a straight line drawn thence due west, until it meets with his Majesty's other governments." The point three miles north of Patucket falls, was found to be in the town of Dracut. From that point, the surveyor, *Richard Hazen*, in the months of February and March, 1741, ran the divisional line between Massachusetts and Newhampshire. He was directed by Mr. *Belcher*, at that time governor of both those provinces, to allow ten degrees for the westerly variation of the magnetic needle. The magnetic variation, at that time and place, was not so great, as the surveyor assumed: And when he arrived at Connecticut river, a distance of fifty five miles, instead of being in a west line, he had deviated to the north 2′ 57″ of latitude. This error in the direction of the line, occasions a loss of 59,873 acres to Newhampshire; and of 139,897 acres to Vermont.

The eastern boundary of Vermont, is formed by the west bank of Connecticut river. This line, following the course of the river, is about two hundred miles; and is derived from the decree of George the third. On the 20th of July, 1764, his Majesty ordered and declared, "The western banks of the river Connecticut, from where it enters the province of Massachusetts Bay, as far north as the forty fifth degree of northern latitude, *to be* the boundary line between

between the two provinces of Newhampshire and Newyork.

The north line of the state begins on the latitude of 45 degrees north, and runs upon that parallel from Lake Champlain to Connecticut river. This line is ninety miles and one quarter of a mile long, and divides this part of the United States from the province of Canada. Marks pitched on trees by the provinces of Newyork and Canada, to ascertain the latitude of 45 by astronomical observations. This was done by commissioners from both provinces, in the month of September, 1765. At the place where the line croffes Lake Champlain, they erected a monument of stone, which is yet standing. The line was afterwards run by Mr. *Collins*, but with what accuracy has not since been examined. This line, ariseth from the proclamation of George the third, of October 7, 1763, determining the southern boundary of the province of Quebec, and from the treaty of peace between Britain and the states of America, in 1783.

Beginning at the southwest corner of the town of Pownal, the west line of Vermont runs northerly, along the western boundaries of the townships of Pownal, Bennington, Shaftsbury, Arlington, Sandgate, Rupert, Pawlet, Wells, and Poultney; the said townships are now held and poffeffed, to the river commonly called Poultney river; thence following the same, through the middle of the deepest channel thereof, to East Bay, thence through the middle of the deepest channel of East Bay, and the waters thereof, to where the same communicate with Lake Champlain; thence through the middle of the deepest channel of Lake Champlain, to the eastward of the islands called the Four Brothers, and to the westward of the islands called the Grand Isle, and Long Isle, or the Two Heroes, and to the westward of the isle la Mott, to the forty fifth degree of north latitude.

latitude. This line is about one hundred and seventy miles in length; and results from the declaration of the commissioners of New-York, of October 7, 1790; and the concurring act of the general assembly of the state of Vermont, passed October 28, 1790.

Computing by the latitudes, the length of the state from the southern to the northern boundary, is one hundred and fifty seven miles and an half. The mean width from east to west is about forty five miles. This will give 7,065 square miles, or 4,521,600 acres, as the superficial area contained within the boundaries of Vermont; but a considerable deduction must be made, to exclude the waters, and reduce it to the just quantity of land.

The land included within these limits, is of a very fertile nature, fitted for all the purposes and productions of agriculture. The soil is deep and of a dark colour; rich, moist, warm, and loamy. It bears corn and other kinds of grain, in large quantities, as soon as it is cleared of the wood, without any ploughing or preparation. And after the first crops, pasturage turns to rich pasture or mowing.

The face of the country exhibits very different prospects. Adjoining to our rivers, we have the wide extensive plains, of a fine level country. At a small distance from these, the land rises into a collection and chain of high mountains, intersected with deep and long valleys. Descending from the mountains, the streams and rivers appear in every part of the country, and afford a plentiful supply of water.

CHAP. II.

Mountains.—Their Direction, Altitude, Vegetation, Courses, the Origin of Springs and Rivers.

IN the formation of our mountains, nature has constructed her works on a large scale, and presents to our view objects, whose magnitude and situation, naturally engage our attention. Through the whole tract of country which lies between the west side of Connecticut river, and the east side of Hudson's river, and Lake Champlain, there is one continued range of mountains.—These mountains begin in the province of Canada. From thence, they extend through the state of Vermont, Massachusetts, and Connecticut, and terminate within a few miles of the sea coast. Their general direction is from N. N. E. to S. S. W.; and their extent is through a tract of country, not less than four hundred miles in length. They are one continued range or collection of mountains, appearing as if they were piled one upon another. They are generally from ten to fifteen miles in width, are much intersected with vallies, abound with springs, and streams of water, and are every where covered with woods. Their appearance, is among the most grand and majestic phenomena, which nature exhibits.—From the perpetual verdure which they exhibit, they are called the *Green Mountains*; and with great propriety their name has been assigned to the state.

The altitude of mountains, has been one of the curious inquiries, which the philosophers of this century

century have been solicitous to determine. The most common method of measuring their heights, has been by the Barometer. I do not know that in many cases, a better method could have been applied. The theory however of this, is not attended with certainty, or precision: And in its application, it has generally given very different altitudes, to the same mountain. Geometrical mensurations admit of greater certainty and simplicity, where they can be applied: But the difficulty and expense of making such mensurations, has prevented any great progress from being made, in this part of the natural history of the earth. In North America, the height of most of our mountains, remains yet to be determined.—In December, 1792, I attempted to ascertain the altitude of *Kellington Peak*, one of the highest of the green mountains, by a geometrical process; and had the happiness to succeed in the mensuration. The measures stood thus,

	Feet.
Height of *Kellington Peak* above the plain at the State House in Rutland, by geometrical mensuration,	2813.
Height of the State House above the waters of Lake Champlain, deduced from the mensuration of the falls of Otter-creek, and a computation of other descents,	871.
Descent of the water from that part of Lake Champlain where the current begins, to St. John's; a distance of fifty miles. Estimated at twelve inches to a mile,	50.
Falls between St. John's and Chamble. Estimated,	40.
Descent of the water from the bason of Chamble to Quebec, a distance of one hundred and eighty miles. Estimated at twelve inches to a mile,	180.

Admitting

admitting the waters of the river St. Lawrence at Quebec, to be of the same level as the sea, the altitude of *Kellington Peak* by these measures and computations, is 3454 feet above the level of the ocean. The altitude at which a perpetual congelation takes place in this latitude (43° 30′) is about 8066 feet above the level of the sea. This is probably four fifths of a mile, higher than the tops of our highest mountains*. But although they are far below the freezing

* Mount Blanc in Savoy, is the highest mountain in Europe, and probably the highest in the other hemisphere. In 1787 its altitude was found by M. *de Sausure* to be 15,678 English feet above the level of the sea. In the southern parts of America M. *Bouguer* found the highest part of the Cordilleras, to be 20,590 feet in height; this is the highest of any upon the globe.—In Virginia, according to Mr. *Jefferson*, the mountains of the Blue ridge, and of these the Peaks of Otter, are thought to be of the greatest height, measured from their base, "From data," saith he, "which may form a tolerable conjecture, we suppose the highest peak to be about 4000 feet perpendicular." (Notes on Virginia, Phila. Edit. p. 18.)—The white mountains in the northeasterly part of New-hampshire, are generally esteemed to be the highest lands in New-england. Their altitude has not been determined by geometrical mensuration, but there is one circumstance attending their phenomena, which may serve to denote their altitude, with much probability. From the observations which have been made of their tops, it appears that the altitude of the highest of the white mountains, is below the point of perpetual congelation. On June 19, 1774, on the south side, in one of the gullies, the snow was five feet deep. On September 1, 1783, the tops of the mountain was covered with ice and snow, newly formed. In 1784, snow was seen on the south side of the largest mountain, until July 12th. In 1790, the snow lay until the month of August. In general, the mountain begins to be covered with snow as early as September; but it goes off again, and seldom becomes fixed until the end of October, or the beginning of November: But from that time, it remains until July. (Belknap's Hist. Newhampshire, 3. 46, 47.)—From these observations it is apparent, that the white mountains rise nearly to the line of perpetual congelation in that latitude, but do not fully come up to it. These mountains are in the latitude of 44° 15′ north. The line of perpetual congelation in this latitude, as deduced from the observations which have been made

freezing point in summer; their phenomena and productions are very much affected by the degree of cold, to which they are constantly exposed.

The tops of our mountains are generally composed of rocks, covered over with moss. The trees appear to be very aged, but they are of a small size; and all of them are of the species called evergreens; pine, spruce, hemlock, and fir, intermixed with shrubs and bushes. The powers of vegetation regularly diminish, as we approach the summit of an high mountain; the trees degenerate in their dimensions, and frequently terminate in a thicket of spruce and hemlock, two or three feet high, whose branches are so interwoven and knit together, as to prevent our passing between them. Trees thus diminished, with shrubs and vines bearing different berries, and a species of grass called wiregrass, mixed with the moss of the rocks, are all the vegetable productions, which nature brings forth on the tops of our highest mountains.

The sides of our mountains are generally very irregular, and rough; and some of them appear to have large apertures, or openings among the rocks. Among these subterraneous passages, some caverns of a considerable extent have been found. One of these is at Clarendon, on the southeast side of a mountain, in the westerly part of the town. The mouth of the cave is not more than 4½ feet in diameter. In its descent, the passage makes an angle with the horizon of 35 or 40 degrees; but continues of nearly the same diameter, through the whole length.

made in Europe, is 7874 feet above the level of the sea. From the greater coldness of the American climate, the point of perpetual congelation in a similar American latitude, cannot exceed, but must rather fall something short of this. The altitude therefore of the white mountains, cannot be estimated at more than 7800 feet above the level of the ocean: And this is probably the altitude of the highest mountains in the eastern states.

length, which is thirty one feet and an half.—At that distance from the mouth, it opens into a spacious room, twenty feet long, twelve feet and an half wide, and eighteen or twenty feet high. Every part of the floor, sides, and roof of this room, appear to be a solid rock, but very rough and uneven. The water is continually percolating through the top, and has formed stalactites of various forms; many of which are conical, and some have the appearance of massive columns. At the north part of this room, there is another aperture of about forty inches diameter, very rough and uneven. This aperture is the beginning of another passage, through the internal parts of a solid rock. The direction of this passage is oblique, and full of slopes or notches, and its length about twenty feet. Descending through this aperture, another spacious room opens to view. The dimensions of this apartment are twenty feet in width, thirty in length, and twenty in height. In the spring of the year, the whole of this lower room is full of water; and at all other seasons, what is to the depth of the lower parts of it.—No animal has been found to reside in this cave, and it evidently appears to be all production of nature, untouched by the hand of man. Another of these caverns is in Dublin, and a third in Dorset. These are said to be more curious than this in Chittenden, but they have not been properly explored. There are others in different parts of the state: All of them are the genuine productions of nature, never altered by art, and never inhabited by any of the human race.

One of the most curious and important operations which nature carries on in the mountains, is the formation of springs and rivers. All our streams of water in Vermont, have their rise among the green mountains: From a number of these uniting, are formed all those brooks and rivers, which run in different directions through the various parts of the

country: And in general, the origin of rivers is to be found in the mountains, or high lands. In what manner do the mountains serve to produce these effects? And whence is it, that the highest mountains attract, collect, become the reservoirs, the receptacles, or the sources, of the largest and most constant collections of water? One part of this effect, seems to be derived from the constant ascent of the waters, from the bowels to the surface of the earth. That water is contained in large quantities in the bowels of the earth, is evident from the springs which are found in almost all declivities; and from those which every where supply wells, at the depth of twenty or thirty feet from the surface of the earth. That these waters are constantly ascending towards the surface of the earth, and going off into the atmosphere, is evident from the evaporation which is constantly taking place, and from the manner in which heat, or as it is generally expressed, a drought affects both the surface of the earth, and the springs, by raising and dissipating the water from both. If this ascent of the waters be obstructed by any strata of clay, rocks, or any other substance, through which they cannot pass, they will collect in such quantities, as to form or find for themselves a channel, through which they may be discharged. The place of this discharge can only be on the side of a hill, or in some ground below the level of that place, where they are thus collected: And at such a place the waters would continue to issue out, as long as they continued to ascend, whatever might be the severity or duration of a drought.—In some such way, it appears probable to me, that some of the springs are formed in the mountains: By waters which are ascending towards the surface of the earth; but which, instead of going off at the top, have their discharge in small quantities, at the sides of the mountains. Any strata of clay, rocks, or of any other

matter,

matter, which would retain the water when it descends in rain or dew, and produce a spring for their descent, would also prevent the ascending water from passing through them, and might produce a spring from their ascent.—This ascent of the waters from the bowels to the surface of the earth, is a constant, powerful, and unceasing operation of nature. And seems to be the only cause, which is adequate to the formation of those springs, which are *perennial*. Such springs could scarcely be formed, or preserved, by the waters which descend in rain, because they are so little affected in the severest droughts. In these seasons, instead of being replenished by rain, the earth to the depth of many feet, is much exhausted of its water by heat. And not rain can ever fall upon the surface of the earth, which was not first carried off from it, by evaporation.

Mountains seem also to form small streams and rivulets, by preventing the evaporation of water from their surface. The vapour out of which the clouds and mists are formed, are all of them first raised from the surface of the earth. When the evaporation is in an open field, exposed to the sun and wind, the exhalations are soon carried off into the atmosphere, and the surface of the earth is left dry. When the evaporation is from lands covered over with thick trees and bushes, the influence of the sun and winds are much prevented; and the waters stagnate upon the surface of the earth, and render it wet and miry, in the form of swamps, and confined waters. When the evaporation is from the sides and tops of mountains, covered with vegetables, the waters are but slowly carried off by the heat and wind, nor can they stagnate, but will be gradually and constantly descending down the sides of the mountains, in natural or artificial channels. And in this way the mountains will also be constantly producing small streams or rivulets.

A similar effect will also be produced by the condensation and collection of the vapours in the atmosphere, occasioned by the height and coldness of the mountains. When the weather is fair and clear, and the atmosphere serene and pleasant in the valleys, the tops of the mountains are often obscured, and covered with a thick fog or cloud. In the cool mornings of the spring and fall, the vapours form a thick fog on the lakes and tops of the mountains, which do not dissolve and disappear, until the sun has risen several degrees above the horizon, and the heat is considerably increased. In damp and rainy weather, the largest part of the clouds seem to collect and dissolve upon the mountains. In winter the snows fall sooner, lie deeper, and continue longer on the mountains, than on any other part of the country. These phenomena denote a greater and more constant collection of vapours and clouds by the mountains, than takes place any where else; and it seems to be occasioned by the greater degrees of cold, which prevail in these elevated situations. The highest parts of our mountains generally abound with rocks, and are covered with large quantities of thick green moss; so extensive, compact, and thick, as to reach from one rock to another, and of so firm a contexture as to bear the weight of a man, without being broken. These immense beds of moss retain the moisture supplied by the clouds and rain: And while part of it runs down the sides of the mountains, part will be detained by the spongy surface, to penetrate and sink into the earth. On this account, and for want of a more rapid evaporation, several of our mountains are constantly wet on their tops, and have marshy spots, which are frequented by the aquatic birds. The roads over these mountains are frequently very wet and miry, when the valleys below are dry. When the waters thus supplied by the clouds and rain, meet with any strata which prevent

their

their deſcent, they collect in ſuch quantities as to form a channel, and iſſue out at the ſides of the mountain in the form of ſprings and rivulets. All thoſe ſprings, which are *intermitting*, ſeem to be thus formed by the rains, or deſcending waters: And the more conſtant and regular the rains are, the more permanent and ſteady will theſe ſprings be: Such kinds of intermitting ſprings are to be found in great numbers, on the ſides of all high mountains. They never fail to run while the rains continue in their uſual quantities; but when the rains ceaſe, and a ſevere drought comes on, theſe ſprings are always found to fail.

In each of theſe ways, the mountains ſupply waters for the ſprings and ſtreams, out of which, the rivers are formed; And they are ſuch as can never fail, while the preſent economy of nature ſhall ſubſiſt. But as the country becomes cultivated, ſome of the ſmaller ſtreams muſt decreaſe, and it is not improbable that when the woods ſhall be cut down, ſome of the leſſer ſprings will wholly diſappear.

CHAP.

CHAP. III.

RIVERS AND LAKES.—*The Situation, Channels, Intervales, Courſes, Depths, and Effects of the Rivers. An Account of Lake Champlain, and Memphremagog.*

ALL the ſtreams and rivers of Vermont, have their origin among the green mountains. About thirty five of them have an eaſterly direction, and fall into Connecticut river. About twenty five run weſterly, and diſcharge themſelves into Lake Champlain: Two or three, running in the ſame direction, fall into Hudſon's river. In the northweſterly parts of the ſtate, there are four or five ſtreams which have a northerly direction, and run into the lake Memphremagog; from thence, through the river St. Francis, they are emptied into the river St. Lawrence.

The moſt conſiderable ſtreams on the weſt ſide of the green mountains, are Otter-creek, Onion river, the river Lamoille, and Michiſcoui.—Otter-creek riſes in Bromley; runs northerly about ninety miles, and falls into Lake Champlain at Ferriſburg; and in its courſe receives about fifteen ſmaller ſtreams. There are large falls in this river at Rutland, Pittſford, Middlebury, and Vergennes. Between theſe falls the current is very ſlow, the water is deep, and it is navigable for the largeſt boats. Veſſels of any burden may come up to the falls at Vergennes, five miles from its mouth. The head of this river in

Bromley

Bromley, is not more than thirty feet from the head of Batton Kill, which runs in a contrary direction, and falls into Hudson's river.

Onion river was formerly called the French river, and by the Indians, Winooski. It rises in Cabot, about fourteen miles to the west of Connecticut river, and thirty miles to the east of the heights of the green mountains. A small southerly branch rises in Washington and Corinth, not more than ten miles from Connecticut river. From this southerly branch, Onion river runs northwesterly, about seventy five miles, and empties itself into Lake Champlain, between Burlington and Colchester. This river receives fourteen smaller streams, and is navigable for small vessels, five miles from its mouth. It has several falls, between which it is navigable for boats. At one of these falls in Waterbury, the channel of the river becomes very narrow, and passes between a high ledge of rocks on each side. A huge unshapely rock, in some ancient time, has fallen from one of these ledges, in such a manner, that the whole river now runs under it. The rock forms a kind of natural bridge, but one that can never be of any use; as neither the shape of the rock, or the situation of the adjacent banks, will ever admit of a road either to, or over the rock. About six miles from its mouth, between Burlington and Colchester, the channel of this river is formed by a solid rock. The channel through the rock, by estimation, is fifteen rods in length, fifty feet wide, and seventy feet deep. Every appearance seems to denote that this channel was formed by the water, which in this place could not have had any other passage.—Onion river is one of the finest streams in Vermont. It runs through a most fertile country, the produce of which for several miles on each side of the river, is brought down to the lake at Burlington. It was along this river, that the Indians formerly travelled from Canada, when they

they made their attacks upon the frontier settlements on Connecticut river.

The river Lamoille proceeds from a pond in Glover. Its general course is westerly. After running about seventy five miles, and receiving fourteen lesser streams, it falls into Lake Champlain at Colchester, five miles north of the mouth of Onion river; and is of the same magnitude as that.—The river Lamoille is a fine, smooth, and pleasant stream; and runs through a rich, level, fertile, country.—The height of the land in the northeast part of the state, seems to be about Greenborough. About six miles to the southwest of the origin of the river Lamoille, is Scotland pond. From this proceeds Black river, which, for five or six miles runs in a direction opposite to, and nearly parallel, with that of the river Lamoille, and discharges itself into the lake Memphremagog.

Michiscoui is the Indian name of the most northerly river in the state. It has its source in Belvidere, and runs nearly northeast until it has crossed the north line of Vermont. After running to some distance in Canada, it turns west, and then southerly, and then reenters the state in Richford; and falls into Lake Champlain at Michiscoui bay, in Highgate. This river is navigable for the largest boats to the falls at Swanton, seven miles from its mouth. Michiscoui, Lamoille, and Onion river, are nearly of the same magnitude.

On the east side of the green mountains, the rivers are not so large as those on the west, but they are more numerous. The largest of them are Wantastitquck or West river, White river, and Poousoomsuck.—Wantastitquck has its main source in Bromley, about three miles southeast from the head of Otter creek. Its course is to the southeast; it receives seven or eight smaller streams; and after running about thirty seven miles, falls into Connecticut river at Brattleborough.

borough. At its mouth this river is about fifteen rods wide, and ten or twelve feet deep.

The north branch of White river, rises in Kingston. The south branch has its source in Philadelphia. From Kingston, the general course of this river is southerly; its length about fifty miles; it receives six or seven lesser streams, and falls into Connecticut river at Hartford. White river abounds with falls and rapids; at its mouth it is about eighteen rods in width, but not more than ten feet in depth.

Poultoonsuck, rises from a pond in Westmore. Its course is southerly; it is made up of ten lesser streams; and after running about forty five miles, it joins Connecticut river in Barnet. It is there twelve rods wide, and eight feet deep.

Connecticut river, into which these streams fall, forms the eastern boundary of the state. The original Indian name, which it still bears, signifies the long river*. This river has its source in a ridge of mountains, which extend northeasterly to the gulph of St. Lawrence. The head of its northwestern branch, is about twenty five miles beyond the latitude of forty five degrees; and so far it has been surveyed. When it first enters the state, it is about ten rods wide; and in the course of sixty miles increases in its width to twenty four rods. Its course between Vermont and New Hampshire, a distance of two hundred miles, is southwesterly; from thence to its mouth, the course is more southerly. After running about four hundred miles through the country, and

* The names which the original inhabitants assigned to our mountains, plains and valleys, are mostly lost. Many of our rivers, bays, and falls of water, are yet known by their ancient Indian names. On account of their originality, antiquity, signification, singularity, and sound, these names ought to be carefully preserved. In every respect they are far preferable to the unmeaning, application, and constant repetition of an improper English name.

receiving a great number of other streams and rivers, it discharges itself into the ocean at Seabrook. With respect to its length, utility and beauty, this is one of the finest rivers in the eastern states. In the months of April or May, it overflows its banks, and for a length of three hundred miles, forms and fertilizes a vast tract of rich meadow. Vessels of eighty or one hundred tons, go up this river as far as Hartford in Connecticut, fifty miles from its mouth. It is navigable for boats three hundred miles further, except the falls which the states of Vermont, Massachusetts, and Connecticut, are now making navigable by locks. While it increases the richness, and serves to transport the produce, by its perpetual majestic movement through an immense tract of country, it is always adding beauty and grandeur to the prospect.

To this account of our rivers, some observations may be added respecting their operations and effects. —Their first operation seems to have been, to form for themselves, a channel. The highest waters descend along the mountains, until they meet with some obstacle to obstruct their motion. Whatever this obstacle may be, it operates as a dam, and serves to collect the waters into a small pond or lake. Two causes are constantly raising the waters, in such collections: The earth is perpetually brought down by the waters, to the bottom of such ponds; and the water is constantly rising by its own accumulation. When it is raised above the banks, the waters find their passage in the lowest part, and begin to form a channel there; and a channel thus formed, will constantly be made more and more deep, by the perpetual running of the water. A similar operation must take place through the whole course of the river, from its first rise and source, to its final discharge into the waters of the ocean. Their channels must at first have been formed by their waters; which

were

were militantly accumulating, and struggling for a paſſage, approach, or diſcharge, into the neareſt ſituation they could take to the center of the earth.

In this deſcent and paſſage to the ocean, all the large rivers in this part of America, have alſo formed large tracts of intervale lands. By intervales we mean thoſe low lands, which are adjacent to the rivers, and are frequently overflowed by them in the ſpring and fall, or whenever the waters are raiſed to their greateſt height. Theſe intervales are level, and extenſive plains, of the ſame altitude as the banks of the river; in width they often reach from a quarter of a mile, to a mile and an half, ſometimes on one, and ſometimes on both ſides of the river. There are frequently two ſtrata of the intervales, the one four or five feet higher than the other; the higheſt of which is not overflowed, but when the waters are raiſed to an uncommon height; but they are level, and extenſive like the other.—Both of them have many indications, that they were formed by the waters of the rivers. The ſoil is always of that rich mud and ſlime, which is brought down by the rivers in the ſpring. In digging into theſe lands, various appearances of decaying vegetables are frequently found. The ſtrata formed at particular years, are eaſily diſtinguiſhed; and the original and the new made ſoil are ſo different, as to be readily known. The limbs and trunks of large, and ſound trees, are often found at various depths; ſometimes ſo low as forty feet below the ſurface. The ſmall iſlands in theſe intervales, are of a different ſoil, and leſs rich; and are evidently the tops of ſmall hills, which have not been covered by the inundations of the rivers. Theſe long and level ſurfaces are peculiar to the banks of rivers, and conſiſt of the ſame rich manure which are yet annually brought down, and depoſited by the waters. The cauſe, by which they are now annually increaſed, could not fail to have

produced

produced such effects, in the course of a long series of years.

In these intervales there are several places, where another curious phenomenon occurs. The rivers have changed their courses, their ancient channels are left dry, and they have formed new ones. In the uncultivated parts of the country, where the operations of nature have not been altered or changed, the traveller finds many places where the rivers formerly rolled, which are now dry, and at a considerable distance, sometimes a mile or more from the present beds of those rivers. In some of these ancient channels, the waters must have run for a long number of ages; as they have worn the surface of the stones as smooth as those which are to be found on the sea shores. In some places the former channels are left dry, abounding with smooth stones and rocks; in others, the channels are converted into ponds, or overgrown with bushes or trees. Appearances of this kind are common in all the mountainous parts of the country; and something of the same kind is constantly taking place in most of our rivers. In all large streams, the channel is more or less affected every year: Strips of land, one or two rods in width, and of some miles in length, are often carried off in the spring; and additions are made to the banks in other places. The lands thus formed in some places, in the course of a few years amount to several acres, and are of an uncommon richness and fertility; but they are always attended with an equal loss in some other part of the river.

The depth of the channels which our rivers have formed, depends upon a variety of circumstances; The nature of the soil, the declivity of the river, the situation of the adjacent banks, the quantity of water, &c. Their channels have been formed two ways, by the wearing away of the ground in some places, and by forming or raising the intervale lands

in

in others; but most generally the channels of the rivers have been formed in both these ways. The largest streams passing through the intervales which they have formed, and having with a gentle current, the depth of the channels appears to have a similarity, or at least a resemblance. The depth of the channels in such situations, in sundry places in Connecticut river, Otter creek, and Onion river is forty or fifty feet below that of the adjacent banks. But the alteration in the depth of these channels is so gradual and slow, that it has scarcely been perceptible, since the first settlement of the country by the English.

It is not only in the channels and intervales which the rivers have formed, that their effects are to be seen, but their operations are also visible upon the stones and rocks. The stones which have been constantly rolled by the streams are always found to be smooth and even; and the rocks in many places, are not only become smooth and slippery, but they are manifestly worn by the constant running of the water. There is another phenomenon extremely curious, derived from this cause; in several rivers, there are holes or cavities, bored into the solid body of large rocks, by the different circular motion of the water. At Rockingham, there is a remarkable fall in Connecticut river, where the water passes over a bar of solid rock; and which it must have been constantly passing over, ever since the river began to flow. In the rocks at these falls, there are several cavities, which appear to have been formed by the circular motion of small stones, constantly kept in action by the force of the descending waters. Some of these cavities are two or three feet in diameter, and from two to four feet in depth; and probably they are yet increasing. Such phenomena are not uncommon wherever there are steep falls in our rivers. But the most singular appearances of

this

the latter which I have ever seen, are at Cavendish, upon Black river, near the house of Salmon Dutton, Esq. Here the channel of the river has been worn down, many hundred feet; and rocks of very large dimensions, have been undermined, and thrown down, one upon another. Holes are wrought into the rocks, of various dimensions, and forms. Some of them are cylindrical, from one to eight feet in diameter, and from one to fifteen feet in depth. Others are of a spherical form, from six to twenty feet diameter, worn almost perfectly smooth, into the solid body of a rock.

How long a period nature has been employed in carrying on these operations, we can scarcely hope to determine. All the circumstances relating to the channels of rivers, and the intervales which they have formed, are such as denote periods of time very remote, and of the highest antiquity. We can scarcely be supposed that in the formation of the intervales, the annual increase has amounted to the tenth part of an inch. At present, the freshets in the spring and fall, and throughout the year, do not annually deposit the one half of this quantity of earth, upon the intervales. At no place in this state, is there any appearance that the surface of the intervales has been raised an inch, in the period of ten years. But admitting such an increase, where the depth of the intervales are fifty feet, the period necessary to produce such an effect, would be six thousand years. But in all such kinds of computation, the data which we assume, are not marked with sufficient certainty or precision, to leave us satisfied with the conclusion.—The effects of the rivers upon the solid rocks, seem to be more slow, regular, and uniform. There are specimens in this and in every part of America, where the water has been constantly flowing over a solid body of rock, ever since the channels of the rivers were first formed. If we know from observation, how much such

rocks

rocks were worn away in one century, by this means we could form a pretty just conclusion how long the waters have been running in those places. If the philosophers of the present age will make accurate observations of the altitude and situations of such rocks, and put their observations upon record in the transactions of their philosophical societies, they will enable posterity to solve a problem, which we can hardly expect to determine in our day.

While the one half of our rivers pass directly the ocean to the south, through Connecticut river, the other half find their way to the ocean, at the north-east, through Lake Champlain and the river St. Lawrence.—Lake Champlain is the largest collection of waters in this part of the United States. Reckoning its length from Fairhaven to St. John's, a course nearly north, it will amount to about two hundred miles. Its width is from one to eighteen miles, being very different in different places; the average width may be estimated at five miles. This will give one thousand square miles, or six hundred and forty thousand acres, as the area of its surface. Its depth is sufficient for the navigation of the largest vessels. It contains several islands; one of them, the Grand Isle, is twenty four miles long, and from two to four miles wide.

The waters which form this lake, are collected from a large tract of country. All the streams, which rise in more than one half of Vermont, flow into it. There are several, which also fall into its eastern side, from the province of Canada. It is probable the rivers which flow into the west side, are as large, numerous, and extensive, as those on the east. The waters therefore, from which Lake Champlain is formed, seem to be collected from a tract of country, of a larger extent, than the whole state of Vermont.

There are many marks and indications that the surface of this lake, was formerly thirty or forty feet

higher

the

the middle of January*. Between the 6th and the 15th of April, the ice generally goes off; and it is not uncommon for many square miles of it, to disappear in one day.

The north line of Vermont passes over the south part of the lake Memphremagog. This lake is about forty miles in length, and two or three miles wide. It lies chiefly in the province of Canada, and has a northerly direction. The river St. Francis forms a communication between the lake Memphremagog, and the river St. Lawrence. Round this lake, there is a rich soil, and a fine level country.

* When the ice is become of its greatest density and firmness, large and extensive cracks or openings will suddenly take place. These cracks in the ice, generally run in an oblique direction, from one cape to another, and often to the distance of ten or fifteen miles. Sometimes the ice will separate on each side, to the distance of five or six feet; at other times it will lap over, or more commonly be thrown up in ridges four or five feet high; and it is often broken into pieces of two or three feet diameter, all round the edges. These openings often prove dangerous to the traveller. They seem to be produced, by the occasional rise and fall of the waters, in the lake; which as they cannot remove, must operate to elevate and depress, and thus to bend and break, the extensive and solid body of ice, which must have assumed the spherical form, which the waters had when they were first frozen.

CHAP. IV.

CLIMATE.—An Account of the Temperature, Winds, Rain, Snow, and Weather. The Change of Climate which has attended the Cultivation of the Country.

THE temperature of any particular place, depends chiefly upon the latitude, the cultivation of the country, the elevation of the place above the adjacent lands, and its proximity to the ocean. The latitude of Vermont is between 42° 44′, and 45° north. Much the largest part of the state has never been cultivated: A large part of the land, is a range of mountains, much higher than the adjacent parts of the country: And the state is from eighty to one hundred and sixty miles from the ocean.

The most common method of determining the mean degree of heat which prevails in any part of the earth, is by thermometrical observations. In the years 1789, 90, 91, I made a course of meteorological observations at Rutland, about the latitude of 43° 30′. The greatest height of Farenheit's thermometer during that period, was 93°¼, on July 13, 1791. The least height was 27 below 0, on December 19, 1790. These may be esteemed as *near the extremes* of heat and cold, in this climate. The *mean heat*, deduced from the whole number of observations, was 43°½.

The temperature of the climate may also be determined by observations of the heat which prevails in deep wells and springs. The heat of the atmosphere,

atmosphere, is derived from the heat, which takes place at the surface of the earth. In passing through the atmosphere, the solar rays do not communicate any heat to the particles of air. The rays must first fall upon the earth, be stopped, and collected, before they produce their effect. And no greater heat can ever be communicated to the atmosphere, than was first communicated to the surface of the earth. Hence we find the temperature of those wells and springs, which are so far beneath the surface of the earth, as not to be much affected by the heat in summer, or by the cold in winter, is the same as the mean temperature of that climate; or the mean heat of the atmosphere, in that place. The temperature of the water in the deep wells in this place, is exactly the same as the mean heat of the atmosphere. I have repeatedly examined the temperature of the water in a well near the State House, by estimation forty five feet in depth, and I have always found the heat to be 45°, without any variation in summer or winter*.

Another view of the climate may be taken from the common operations of nature, the vegetable and animal productions. The times when the trees and plants put forth their buds, leaves, flowers, and fruit,

 or

* On a journey from the University at Newhaven in Connecticut, to Burlington upon Onion river, I made the following observations upon the temperature of the wells; which may serve to shew in what manner the heat decreases as we advance towards the north, in a country but little cultivated.

Place.		Depth by estimation.	Temperature.
Newhaven,	*President's well,*	80 feet	49¾
Middletown,	*Goodwin's Inn,*	27	50
Hartford,	*Bull's Inn,*	40	49½
Stockbridge,	*Judge Edwards',*	25	50
Pittsfield,	*Strong's Inn,*	40	47½
Tinmouth,	*Judge Marsh's Spring,*		44
Rutland,	*Bull's Inn,*	145	43½
Burlington,	*Keyes's Inn,*	25	42

or when the different ſeeds are planted, ſpring up, are in bloſſom, produce their fruit, and are gathered in; when the birds of paſſage, or other migratory animals, make their approach or departure; obſervations upon ſuch phenomena, are among the beſt obſervations we can ever have, to aſcertain the relative temperatures of different climates. Referring thoſe which relate to the migration of animals, to the deſcription of the birds, one or two ſmall tables will ſerve to give us a view of the times, when different vegetables produce their fruit, in this part of the continent.

TABLE I.

A View of the Climate, taken from the State of Vegetation in the Trees and Shrubs.

Trees and Shrubs.	Buds.	Leaves.	Flowers.	Maturity.
Elder,	April 6	April 14	June 15	———
Gooſeberry,	April 6	April 16	May 9	July 20
Currant,	April 6	April 16	May 1	July 1
Raſpberry,	April 6	April 17	May 27	July 5
Strawberry,	April 20	April 20	May 6	June 15
Wild Cherry,	April 20	April 28	May 4	June 20
Wild Plumb,	April 20	May 4	May 1	Aug. 12
Apple Tree,	April 22	May 1	May 12	Aug. 12

TABLE II.

A View of the Climate, taken from the Fruits of the Field,

Seeds and Fruits.	Sown.	Flowers.	Gathered.
Flax,	April 16	June 25	Aug. 1
Spring Wheat,	April 15	May 30	Aug. 15
Winter Wheat,	Sept. 1	May 26	Aug. 1
Oats,	April 20	June 7	Aug. 20
Peas,	April 16	May 26	July 1
Barley,	April 20	June 10	July 28
Rye,	Aug. 20	May 27	July 28
Indian Corn,	May 15	July 12	Oct. 1
Hay,	———	———	July 10

The

The frosts commonly cease about the beginning of June, and come on again between the first and the middle of September. When they first come, they appear not on the hills, or highest parts of the trees, but in the low and [illegible] lands, and on the lowest parts of the trees. When a fog lies along the low lands adjoining to a river, when the winds are high, and when the lands are but partly or newly cleared, the frosts are retarded or prevented; and do not appear so soon, or so great, as in clear, low, and wet places. These circumstances seem to explain the reason why the frosts are first seen not on the high, but on the low lands. The dews and vapours are the most dense and abundant, in those places; much more so than they are at higher altitudes, or upon the hills. The first effects of the frost are not sufficient to freeze the leaves of the trees, or other vegetables. The cold at first avails only to effect the congelation of the dew and vapour; as these are chiefly to be found in the low and moist lands, and not higher than the lowest limbs of the trees, these are the places where the first effects of the frosts appear. A high wind serves to prevent these effects, by carrying off the dew and vapours; and a fog detains the heat in amazing quantities, and prevents its flowing off from the surface of the earth, either so rapidly, or in such quantities, as to occasion a frost.

In those places where the earth is not covered with snow, the frost penetrates several feet below the surface. In the winter of 1789 there was but little snow at Rutland; and the surface of the earth was frozen almost the whole winter. On March the 19th the ground was frozen to the depth of three feet and eight inches. The ice in the lakes and stagnant waters, is generally frozen in the course of the winter, about thirty inches thick; in the rivers and streams it is about twenty four; and commonly goes off the last week in March.

The

The severest cold of our winters never kills any of our young trees, and seldom freezes any of our young cattle, although they are not housed during the winter. Nor is the cold so affecting to the human body, as the extremes, and sudden changes from heat to cold, on the sea coasts. From the time that the winter first sets in, until it breaks up, we have generally a settled steady cold, for the most part without any thaw, and with but a few days in which the snow melts at all. During this period, we become accustomed to the weather, and every thing in our feeding, and clothing, is adapted to a steady and severe cold. Such a steady equal temperature, is far more comfortable than those great and sudden changes, which take place, where the extremes of heat and cold are frequently succeeding each other.

The temperature of the American climate is so different in different parts of the same state, and often in the same latitude, that it cannot be well understood, but by viewing it in its variations through the different parts of the northern continent. The following table is designed to exhibit such a comparative view.

The

Thermometrical Observations.

Months.	South Carolina. Charleston. lat. 32°45′. 5 years obs. 1738—42.	Maryland. lat. 5 years obs. 1753 &c.	Virginia. Williamsburg. lat. 37°16′. 5 years obs. 1770—5.	Pennsylvania. Philadel. lat. 39°56′. 2 years obs. 1748 & 9.	Massachusetts. Cambridge. lat. 42°25′. 52 years obs. 1724—8.	Vermont. Rutland. lat. 43°30′. 7 years obs. 1789.	Canada. Quebec. lat. 46°. 5 years obs. 1749 & 4.	Hudson's Bay. Prince of Wales Fort. lat. 58°. 2 years obs. 1768 & 9.
	Mean Heat.	M. Heat.	M. Heat.	M. Heat.	M. Heat.	M. Heat.	M. Heat.	M. Heat.
January	51°	41°	41°,2	28°	22°,5	18°	10°	—26°,6
February	54	43	44, 2	31	23, 9	18, 5	10	—17, 6
March	59	48	51, 2	44	34, 9	34	25	— 9, 5
April	70	53	59, 2	50	45, 1	41	40	21, 8
May	75	65	66, 7	62	54, 4	59	52	38, 0
June	79	70	74, 9	70	66, 2	64	57	50, 0
July	81	73	79, 7	72	69, 6	67, 5	69	56, 4
August	79	76	78, 5	70	69, 4	67, 5	67	53, 6
September	73	72	73, 2	68	60, 0	57	51	44, 6
October	62	60	63, 9	55	50, 1	46	44	28, 0
November	53	49	50, 6	38	40, 2	37	36	1, 2
December	51	40	45, 9	33	29, 4	30°	20	—19, 6
M. of the Year.	66	60	60, 8	58, 9	47, 0	43, 6	42	16, 7
Least Heat.	48	30	36		31	22.		45
Greatest Heat.	101	93	98		96	91	86	85
Observers.	Lining. Phil. Transf. Vol. 45. p. 342.	Brooke Phil. Trn. 1759. p. 58.	Jefferson's Notes on Virginia. p. 136.	Kalm's Travels. Vol. 2. p. 349.	Williams.	Williams.	Gother Hist. Acc. Roy. Scie. 1748. p. 194.	Wales Phil. Transf. 1770. p. 237.

The winds in Northamerica receive their general direction from the situation of the sea coasts, mountains, and rivers. These are very much from the southwest to northeast. The most prevalent of our winds, are either parallel with, or perpendicular to this course; Or rather, they are from the northeast, east, southwest, and northwest. More than one half of the winds which blow during the year, are from that quarter which lies between the southwest and northwest. The west and northwest winds are dry, cooling, and elastic. These winds always begin at the sea coast. Those from the south and southwest are more warm, moist, and relaxing. The easterly winds seldom extend so far from the sea coast as Vermont. They not only lose their distressing chill and dampness, as they advance into the country, but they seldom reach so far as Connecticut river; and they are unknown on the west side of the green mountains.——The winds seem to observe something like a regular course, during the day. At sunrise there generally seems to be a calm; about seven or eight o'clock, the winds begin to rise, which at nine or ten becomes a fresh breeze; and increases until one or two o'clock: From about three or four, the wind decreases until eight or nine in the evening; when it again becomes calm, and continues thus through the night. This general routine seems to be observed more generally in the latter part of winter, and in the spring, than at other times of the year. But there are times in those seasons of the year, when the wind rages without much intermission for two or three days together.

A general table of their directions at different places upon the continent, will give the best views of their comparative courses.

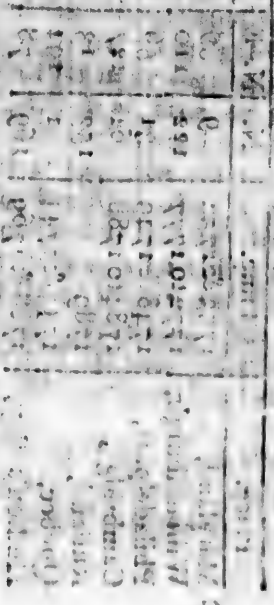
The

The Directions of the WINDS at sundry Places in North America, and the Number of Observations.

Place.	Time.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.
Maryland,	1753 & 1764	9	59						
Williamsburgh,	1772 to 1777	122	110						
Philadelphia,	1748 & 1749	31	56						
Cambridge,	1784 to 1788	61	127						
Rutland,	1789	153	13						
Quebec,	1743 & 1744	2	194						
Hudson's Bay,	1768 & 1769	169	78						

The

The quantity of rain which falls at those places in Northamerica where meteorological observations have been made, has been found to be more than double to that which generally falls in the same latitude in Europe. We cannot well account for this, without supposing that the immense forests of America, supply a larger quantity of water for the formation of clouds, than the more cultivated countries of Europe. Many parts of America do however, suffer severely, by drought. This is very seldom the case in Vermont. The lands are naturally moist, the mountains supply water for regular rains, and the heat of the sun is not so intense as suddenly to disperse the vapours, dry up the waters, or parch the land. These kinds of observations will be reduced to the smallest compass, and give the most complete comparative view, by exhibiting them in the form of a general Table.



The

The Quantity of RAIN which falls at sundry Places in Northamerica, in the Course of one Year, computed from annual Observations.

Month.	Southerton, Charleston. 5 Years Ob. 1738—1743. Mean altitude 10 inches.	Virginia, Williamsburg. 5 Years Ob. 1772—1777. Mean altitude 3 inches.	Massachusetts, Cambridge. 5 Years Ob. 1742—1746. Mean altitude 3 inches.	Pensilvania, Kalm. 4 Years Ob. 1748—1751. Mean altitude 3 inches.	Pensilvania, Philadelphia. 5 Years Ob. 1766—1770. Mean altitude 3 inches.
January	4,624	3,195	3,503	3,497	3,179
February	3,735	3,049	2,618	2,784	
March	3,329	3,950	3,516	3,014	
April	3,074	3,686	2,735	4,716	
May	5,979	3,875	5,861	3,914	
June	6,009	3,751	4,083	3,914	
July	5,840	4,497	3,911	3,914	
August	5,964	3,158	3,911	3,914	
September	4,944	3,761	3,911	3,914	
October	4,450	3,633	3,911	3,914	
November	3,494	2,617	3,911	3,914	
December	3,533	1,877	3,911	3,914	
Total.	47,666	42,028	38,396	42,179	6,217
Greatest rain in 24 hours.	3,80		Greatest rain in one day.		
Owned the 24 hours	5,30		Oct. 22, 1745.		
June 28, 1750.					

During

During three months in the year, this part of America is covered with snow. On the mountains the snow is generally from two and an half to four and an half feet deep; and does not go off until after the middle of April. In the lower grounds, the snow for the most part, is from one, to two and an half feet deep; and remains until about the 20th of March.—The advantage derived to the earth from the quantity and duration of the snow, is every where apparent. As soon as it is melted on the mountains, the earth appears to be greatly fertilized: The spring comes on immediately; and the vegetables of every kind are green, and flourishing. With a very little cultivation, the earth is prepared for the reception of the seed; and the vegetation becomes extremely quick and rapid.

The effects being so apparent, a general opinion seems to have taken place, that the snow communicates to the earth some nitrous salts or enriching substance which tends to increase its fertility. In Feb. 1791, I melted as much snow as afforded six gallons of water. The snow was collected as it was falling: Being evaporated there remained eleven grains of calcarious earth, five grains of an oily substance, and two grains of saline matter. The fertilizing effect of snow, cannot therefore be derived from any nitrous salts, which it receives or contains when it is falling through the atmosphere. Suspecting it might acquire some saline mixtures by laying on the earth, Jan. 30, 1792, in an open field covered with grass, I collected as much of the snow which lay next to the earth, as produced six gallons of water. This snow spread over an area of sixteen square feet, and had lain upon the ground fifty nine days. Upon evaporating the water there was not more saline matter, or calcarious earth, than in the former experiment; but a much larger quantity of oily substance. The oil was of a dark brown colour, not inflammable,

ble, and weighed four pennyweights and nine grains, troy weight. From the former experiment it appears that the biggeſt part of this oily matter accrued to the ſnow after it had fallen upon the earth; And to this oily ſubſtance, is probably to be imputed that dirty or ſooty appearance, which the ſnow is generally obſerved to have, after it has begun to thaw. If the ſnow which I removed contained the ſame quantity of oil as that which I examined, a conſiderable nutriment might be preſerved to the earth from this cauſe. The depth of the ſnow was thirty inches; The depth of that quantity which I collected to melt, as nearly as I could determine, was three inches. This will give two ounces, three pennyweights and eighteen grains, as the quantity of mucilaginous matter, which would have deſcended upon ſixteen ſquare feet of the earth, from the quantity of ſnow that was then upon the ground.

Beſide the ſnow thus prevents all waſte from the internal parts of the earth, it performs another and more important office, that of preſerving its internal heat. The internal parts of the earth through the territory of Vermont, are heated to about the forty fourth degree of Farenheit's thermometer. When the heat of the atmoſphere is greater than this, a part of that heat will flow into the earth, and thus the heat of the earth will be increaſed. When the heat of the atmoſphere is leſs than forty four degrees, the heat will flow out of the earth into the atmoſphere, and in this way the internal parts of the earth will be loſing their heat, or becoming colder. This is the caſe during the winter months; or rather, from the middle of October, to the beginning of April. Hence the ſurface of the earth when expoſed to the atmoſphere, becomes frozen to a greater or leſs depth, according to the degree and duration of the cold. The ſnow tends very much to prevent this. By covering over the ſurface of the ground a conſiderable depth,

the

the ſnow by its nature and colour, prevents the internal heat of the earth from flowing into the colder atmoſphere, and the atmoſphere from coming into contact with the earth. In this way while the earth is covered with a deep ſnow, its heat is preſerved, and the ſurface, in the coldeſt weather, is kept warm. To aſcertain to what degree the heat of the earth was affected by the quantity of ſnow that lay upon it, on Jan. 14, 1791 (an extreme cold winter) I dug through the froſen ſurface in a plain open field, where the ſnow had been driven away by the wind, and found the ground was froſen to the depth of three feet and five inches. In the woods, where the ſnow was three feet deep, I found on the ſame day the heat of the earth, ſix inches below the ſurface, was thirty nine degrees. The ſurface of the earth had been froſen to this depth, before it was covered with ſnow. The froſt was not only extracted, but the ſurface of the earth was heated ſeven degrees above the freezing point, in conſequence of the ſnow with which it was covered.

This will help us to account for the beneficial effects, which are derived from the ſnow, in all cold climates. Different degrees of heat are neceſſary, for the preſervation and growth of different vegetables. None of them grow, when they are froſen; and moſt of them will periſh when the cold at their roots is very ſevere. A thick covering of ſnow prevents theſe effects. The earth is kept open, and the roots of the vegetables are preſerved comparatively warm. The ſnow is continually melting at the ſurface of the earth: It moiſtens, and enriches the ſoil; keeps off the froſt and wind, and prevents all evaporation from the ſurface of the earth. The earth thus prepared by heat and moiſture, and a collection of all its effluvia, is in a fit ſtate for that ſudden and rapid vegetation, which takes place in all cold climates, immediately upon the melting of the ſnow.

The

The weather is generally fair in the winter; and often, with an hazy atmosphere. The snows are frequent but they generally come in small quantities, and are over in one or two hours. They are not attended with high winds, or heavy storms; but they come from all points of the compass, except the east; very frequently from the west, and north-west. Hail is not uncommon in the winter, but rain is not frequent.—About the middle of March the spring commences. The winds and weather are then very unsettled until the beginning of April. In April and May the weather becomes mild and pleasant, attended with frequent showers.—In the summer months the weather is generally fair, clear and settled. The winds are mostly from the south, and southwest, the heat in the middle of the day is often very uncomfortable, but the nights are almost ever cool and pleasant.—From the beginning of September, until the middle of October, we have commonly the most agreeable season, with moderate westerly winds, and a clear sky. The latter part of October and November, are generally cold, wet and uncomfortable; attended with frequent rains, some snow and high winds.

Thunder and lightning are common in the months of May, June, July and August; but seldom in the other months. The Aurora Borealis is the most common in the months of March, September and October; but it is not unusual at other times of the year. Heavy and long storms of snow, or rain, are scarcely ever known: But sudden and violent whirlwinds or hurricanes sometimes arise, and do much damage in the fall; but we seldom receive any injury from the hail.—Annual courses of meteorological observations properly reduced, will afford the most complete information of the weather, and meteors, in the different parts of Northamerica.

The

The State of the WEATHER at sundry Places in North America, as collected from their Journals.

Place.	Time.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Maryland,	1753	31	34	39	54	64	72	77	76	70	58	45	38
	1754	33	38	41	49	63	73	78	77	71	59	48	41
Philadelphia,	1748	33	33	42	52	64	73	78	76	70	58	45	38
	1749	34	34	41	51	63	72	77	75	69	57	46	39
Cambridge,	1741	29	30	38	50	62	71	76	74	68	56	44	37
	1788	30	31	39	51	63	72	77	75	69	57	45	38
Rutland,	1789	28	29	37	49	61	70	75	73	67	55	43	36
Quebec,	1743	15	16	25	41	56	67	73	71	63	50	37	28
	1744	16	17	26	42	57	68	74	72	64	51	38	29
Hudson's Bay,	1769	10	11	20	36	51	62	68	66	58	45	32	23

The

The above accounts are designed to exhibit a just view of our climate. But instead of remaining fixed and settled, the climate is perpetually changing and altering, in all its circumstances and affections. And this change instead of being so slow and gradual, as to be a matter of doubt, is so rapid and constant, that it is the subject of common observation and experience. It has been observed in every part of the United States; but is most of all sensible and apparent in a new country, which is sudden[illegible] changing from a state of [illegible] uncultivated wilderness, to that of numerous settlements and extensive improvements.—When the settlers move into a new township, their first business is to cut down the trees, clear up the lands, and sow them with grain. The earth is no sooner laid open to the influence of the sun and winds, than the effects of cultivation begin to appear. The surface of the earth becomes more warm and dry. As the settlements increase, these effects become more general and extensive. The cold decreases, the earth and air become more warm; and the whole temperature of the climate becomes more equal, uniform and moderate. At the same time the lands and roads become more dry and hard. The stagnant waters disappear, small streams and rivulets dry up, and the redundant waters are carried off. The number and quantity of the snows decrease; the winds receive new directions, and the weather and seasons become much altered. These changes every where attend the cultivation of the country; and have formed a remarkable change of climate in those states, which have been long settled.

In this change of climate, the first effect which is generally observed, is an alteration in the temperature. The cold of the winters decreases; the rivers are not frozen so soon, so thick, or so long, as they formerly were; and the effects of extreme cold, in every respect, appear to be diminished. A remark-

able change of this kind, has been observed in all the settled parts of Northamerica. The bays and rivers in Newengland, are not frozen so hard, or so long, as they were at the first settlement of the country.* At the first settlement of Philadelphia, the river Delaware was commonly covered with ice, about the middle of November, old style.† It is not now commonly covered with ice, until the first week in January. Similar observations have been made with regard to the ice in Hudson's river.‡ The baron *Lahontan* gave this account of the river St. Lawrence, at Quebec, in 1690: "I put to sea the 20th of November, new style, the like of which was never seen in that place before. The ice had covered the river on the 13th and 14th of November, but was carried off by a sudden thaw."‖ The river is not frozen over now until the latter end of December, or the beginning of January. The ancient people at Quebec, in 1749, informed Mr. Kalm, that the winters in Canada were formerly much colder, than they were then.§ Similar observations have been made in almost every part of Northamerica, where settlements and cultivation have taken place.

Although the general effect has been every where apparent, it is not an easy thing to ascertain the *degree*, to which the temperature has changed, in any particular place. When our ancestors first came into America, thermometers were not invented. And they have not left us any accurate meteorological remarks or observations, from which we can determine the exact degree of cold, which prevailed in their times. Upon looking over the most ancient writers of Newengland, the only account I have found,

* Newengland's Prospect, by W. Wood; wrote in 1633, p. 4.
† Kalm's Travels, Vol. I. p. 420.
‡ Smith's History of Newyork.
‖ Voyages to Northamerica, p. 165.
§ Kalm's Travels, Vol. II. p. 382.

found, which will afford any diſtinct information upon this ſubject, is the following paſſage, referring to years previous to 1633. "The extremity of this cold weather laſteth but for two months, or ten weeks, beginning in *December*, and breaking up the tenth day of *February* (aſt, now ſtile), which hath become a paſſage very remarkable, that for ten or a dozen years, the weather hath held himſelf to his day, unlocking his bay, bays and rivers, which are never frozen again the ſame year, except there be ſome ſmall froſt until the middle of *March*."[2] The winter is leſs ſevere now in ſeveral reſpects; The extremity of the cold weather does not come on ſo ſoon by ſeveral weeks; the bays at Boſton, inſtead of being annually covered with ice, are but ſeldom frozen to this degree, and they do not continue in this ſtate a longer time than eight or ten days. In the year 1782, the harbour between Boſton and Charleſtown was frozen to ſuch a degree, that horſes and ſleighs paſſed over the ice, for five or ſix days. This was the beginning of ſuch an effect, as that which is mentioned in the ancient account. The ice became fixed and permanent on February 2, and continued in this ſtate until February 10. During that time I found the loweſt degree of Farenheit's thermometer to be—9°; the greateſt degree was 28°; and the mean heat was 18°. It may be preſumed therefore, that the freezing of the bays of which Wood ſpeaks, could not have taken place, or continued, in a leſs degree of heat than this. This will give us 18 degrees of Farenheit's thermometer, as the mean heat which took place during eight or ten weeks of the winter, ſo far back as the year 1630. By the meteorological obſervations which I made in the Univerſity at Cambridge for ſeven years, from 1780 to 1788, I found the mean heat in the month of December was 29° 4'; in January it was 22° 5'; and

[2] Wood's Proſpect, p. 4.

and in February it was 29° 0′. These numbers express the present temperature of the winter at Boston. If this computation be admitted, the change of temperature in the winter at Boston, from the year 1630 to the year 1788, must have been from ten to twelve degrees.

A permanent alteration in the temperature of the climate or atmosphere, supposes an alteration equally great and permanent, in the heat of the earth. Whether the heat of the earth is thus affected by cultivation, and what will be its effects, I endeavoured to ascertain in the following manner. On the 2nd of May, 1789, I sunk a thermometer to the depth of ten inches below the surface of the earth. Upon repeated trials the quicksilver stood at fifty degrees. This was in a level open field, used for pasture or grazing, and fully exposed to the sun. The same experiment was then made in the woods, where the surface of the earth was covered with trees, and never had been cultivated. To ascertain the gradual increase of heat at each place, the observations were often repeated. The result was as follows.

Time.	Heat in the Pasture.	Heat in the Woods.	Difference.
May 25	50°	46°	4°
28	57	48	9
June 15	64	51	13
27	68	52	16
July 16	69	54	15
30	69½	55½	14
August 15	68	58	10
31	59½	55	4½
September 15	59½	55	4½
October 1	59½	55	4½
15	49	49	0
November 1	43	43	0
16	43½	43½	0

The

The effect of cultivation with regard to the heat of the earth, so far as it can be collected from these experiments, appears to be this: Exposing the land to the full force of the solar rays in this latitude, will produce an heat at the depth of ten inches below the surface, ten or eleven degrees greater than that which prevails in the uncultivated parts of the country; and this effect continues while the solar rays are sufficient to increase the heat of the earth. This additional heat in the earth, will be sufficient to produce the same alteration in the temperature of the air; for whatever degree of heat prevails in the earth, nearly the same will be communicated to the lower parts of the atmosphere. Thus the earth and the air, in the cultivated parts of the country, are heated in consequence of their cultivation, ten or eleven degrees more, than they were in their uncultivated state. It should seem from these observations that the effect, or the degree of heat produced by cultivation, is the same with the change of climate, that has taken place in the eastern part of Massachusetts.

Another remarkable effect which makes part of the change of climate, and always attends the cultivation of the country, is an alteration in the moisture or wetness of the earth. As the surface of the earth becomes more warm, it becomes more dry and hard, and the stagnant waters disappear. Alterations of this kind, have been common, and great, in all the ancient settlements in the United States. Many of the small streams and brooks are dried up; Mills, which at the first settlement of the country, were plentifully supplied with water from small rivers, have ceased to be useful. Miry places, and large swamps, are become among the richest of our arable lands.—In the new settlements, the change is effected in two or three years. Fields of corn and wheat are attended with the most rapid vegetation, and

and the greateſt increaſe in lands, where the waters five or ſix years ago, were ſtagnant, and in ſuch quantities as to be ſpread over the largeſt part of the ground. One of the firſt effects of cultivation is the diſperſion of theſe waters, and a change in the ſoil, from the appearance of a ſwamp, to that of a dry and fertile field.

There are two ways in which cultivation operates, to produce this effect. By the cutting down of the trees, the diſperſion of a vaſt quantity of fluid, emitted by their evaporation, is prevented; and by laying the lands open to the influence of the ſun and winds, the evaporation of the ſtagnant waters is greatly promoted.—The effect of the firſt, from experiments which will be related when the vegetable productions are conſidered, may be eſtimated at three thouſand and eight hundred gallons of water thrown off from the trees on one acre, in the ſpace of twelve hours, in hot weather. To aſcertain the effect which might ariſe from the latter, on June 27th, 1789, a fair, calm, and hot day, I placed a china ſaucer on the ground in the woods, where it was covered from the ſolar rays by the trees, the leaves of which at the height of ten or twelve feet, were very thick. Another ſaucer in all reſpects ſimilar to this, was placed on the ground in an open field adjoining, where it was fully expoſed to the wind and ſun. I poured into each of them equal quantities of water; at the end of three hours the evaporation from the latter, was to that from the former, as ſix, eight to one.—With regard then to the moiſture or wetneſs of the country, it appears that ſettlement and cultivation will be ſufficient to prevent the diſcharge of three thouſand and eight hundred gallons of water, over one acre of land, in twelve hours, during the hot weather; and at the time to effect the diſperſion of ſix, eight times as much water from the ſurface of the earth, as would have been diſperſed in its

uncultivated

uncultivated ſtate. If we may judge upon a matter which cannot be reduced to exact calculation, it ſhould ſeem that the cauſe was here equal to the effect.

A change in the climate hath alſo been manifeſt in the apparent decreaſe of the ſnow, in all the ancient cultivated parts of the United States. Whether there has been any alteration in the annual quantity of rain in any part of America, we cannot determine, for want of meteorological obſervations; but a great decreaſe of ſnow has been obſerved in all the ancient ſettlements. At the firſt ſettlement of Newengland, the earth was generally covered with ſnow for more than three months in the year, it began to fall in large quantities by the firſt of December, and ſeldom went off until ſome time in March. This is yet the caſe in the inland and mountainous parts of the country. The ſnow covers them for three months, and is ſeldom carried off by a thaw until the ſpring comes on. In the old parts of the country which have been long ſettled and cultivated, the ſnows have been declining for many years. They are neither ſo frequent, deep, or of ſo long continuance, as they were formerly. And they are yet declining very faſt in their number, quantity, and duration. This event is derived from the change of temperature, which has taken place in the atmoſphere; and probably will keep pace exactly with it. There has alſo been an apparent alteration in the direction of the winds. The prevalency and extent of the weſterly winds, ſeem to be abating: Or rather the eaſterly winds are certainly increaſing in their frequency and extent. Theſe winds are now very frequent in the ſpring, in all that part of the country, which lies within ſixty or ſeventy miles of the ſea coaſt. Half a century ago, the eaſterly winds ſeldom reached farther than thirty or forty miles from the ſea ſhore. They have

now

now advanced as far as the mountains, which are generally eighty or an hundred miles from the ocean. As the country becomes ſettled and cleared, they are found to advance more and more into the internal parts of the country.—It can hardly be doubted, but that this event is owing to the increaſing cultivation of the country. As the woods are cut down, the earth and atmoſphere become more heated than the ocean: The direction of the winds will of courſe be from the ſea towards the land. As the country becomes more ſettled and cleared, it is probable theſe winds will continue to advance further towards the weſt.

The ſame cauſes which produce a change in the heat of the earth, in its wetneſs, in the ſnow and winds, will produce as great a change in the weather and ſeaſons. While the ſtate of a country remains unaltered, the general courſe and appearance of nature will be the ſame, from one age to another. Summer and winter, ſpring and fall, the productions of the earth, the ſtate of the air and weather, will be ſubject to but little annual alteration or change. But when the whole face and ſtate of a country are changing, the weather and ſeaſons will alſo change with them.—This is an event that has already taken place in the moſt ancient and cultivated parts of America. When our anceſtors firſt came into New-england, the ſeaſons and weather were uniform and regular. The winter ſet in about the beginning of December, old ſtyle, and continued until the middle of February. During that time the weather was generally fair, and cold, and without much change. Towards the end of February the winter generally broke up. When the ſpring came on, it came on at once; without repeated and ſudden changes from heat to cold, and from cold to heat. The ſummer was extremely hot and ſultry, for a month or ſix weeks; but it was of a ſhort duration. The autumn

commenced

commenced about the beginning of September; and the harveſt of all kinds was gathered by the end of that month.—A very different ſtate of things now takes place, in all that part of Newengland, which has been long ſettled. The ſeaſons are much changed, and the weather is become more variable and uncertain. The winter is intermixed with great and ſudden thaws, and is become much ſhorter. The changes of weather and temperature, are great and common in the ſpring; and at that ſeaſon there is generally an unfortunate fluctuation between heat and cold, greatly unfavourable to vegetation, and the fruits of the earth. The ſummers are become more moderate in reſpect to the extreme heat of a few weeks; but they are of a much longer duration. The autumn commences, and ends, much later than formerly: The harveſt is not finiſhed until the firſt week of November; and the ſeverity of winter does not commonly take place, until the latter end of December. But the whole courſe of the weather is become more uncertain, variable and fluctuating than it was in the uncultivated ſtate of the country.

It is in theſe particulars, the change that has taken place in the heat of the earth, in its wetneſs, in the ſnow, winds, weather and ſeaſons, that the change of climate in Northamerica has principally appeared. That this change of climate is much connected with, and greatly accelerated by the cultivation of the country, cannot be doubted. But whether this cauſe is ſufficient to account for all the phenomena, which have attended the change of climate in the various parts of the earth, ſeems to be uncertain.

I CHAP.

CHAP. V.

VEGETABLE PRODUCTIONS.—*Forest Trees, esculent and medicinal Vegetables. Remarks on the Magnitude, Number, Age, Evaporation, Emission of Air, Heat, and Effect of the Trees.*

WHEN the Europeans first took possession of Northamerica, it was one continued forest, the greatest upon the earth. The country was every where covered with woods, not planted by the hand of man; but derived from, and ancient as the powers of nature. The great variety of plants and flowers, the immense numbers, dimensions, and kinds of trees, which spread over the hills, valleys, and mountains, presented to the eye, a most magnificent and boundless prospect. This is still the case with the uncultivated parts of the country.

Much the largest part of Vermont is yet in the state, in which nature placed it. Uncultivated by the hand of man, it presents to our view a vast tract of woods, abounding with trees, plants, and flowers, almost infinite in number, and of the most various species and kinds. It would be the employment of many years, to form a complete catalogue of them. I shall not attempt to enumerate any, but those which are the most common and useful.

FOREST

FOREST TREES.

The TREES which are the moſt large and common are the

White pine. *Pinus ſtrobus.*
Yellow pine. *Pinus pinea.*
Pitch pine. *Pinus tæda.*
Larch. *Pinus larix.*
Hemlock. *Pinus abies.*
White ſpruce. } *Pinus canadenſis.*
Black ſpruce. }
Fir. *Pinus balſamea.*
White maple. *Acer negundo.*
Red maple. *Acer rubrum.*
Black maple. *Acer ſaccharinum.*
White beech, } *Fagus ſylvatica.*
Red beech, }
White aſh. *Fraxinus excelſior.*
Black aſh. *Fraxinus americana.*
White birch. *Betula alba.*
Black birch. *Betula nigra.*
Red *or* yellow birch. *Betula lenta.*
Alder. *Betula alnus.*
White elm. } *Ulmus americana.*
Red elm. }
Black oak. *Quercus nigra.*
White oak. *Quercus alba.*
Red oak. *Quercus rubra.*
Cheſnut oak. *Quercus prinus.*
White hiccory, *or* Walnut. *Juglans alba.*
Shagbark. *Juglans alba, cortice ſquamoſo.*
Butternut. *Juglans alba, cortice cathartica.*
Cheſnut. *Fagus caſtanea.*
Buttonwood. *Platanus occidentalis.*
Baſſwood, *or* lime tree. *Tilia americana.*
Hornbeam. *Carpinus betulus.*

Wild

Wild cherry, several species.
Saſſafras. *Laurus ſaſſafras.*
White cedar. *Thuja occidentalis.*
Red cedar. *Juniperus virginiana.*
White poplar, *or* Aſpen. *Populus tremula.*
Black poplar, *or* Balſam. *Populus nigra.*
Red willow. *Salix.*
White willow. *Salix alba.*
Hackmatack.

ESCULENT.

The following are ſmall trees, ſhrubs, or vines, valuable on account of their ſalubrious and pleaſant *fruit.*

Red plumb.
Yellow plumb. } *Prunus ſylveſtris.*
Thorn plumb.
Black cherry.
Red cherry. } *Ceraſus ſylveſtris.*
Choke cherry.
Juniper. *Juniperus ſabina.*
Hazlenut. *Corylus avellana.*
Black currant. *Ribes nigrum.*
Wild gooſeberry. *Ribes groſularia.*
Whortleberry.
Bilberry.
Blueberry. } *Vaccinium corymboſum.*
Chokeberry.
Partridgeberry. *Arbutus viridis.*
Pigeonberry. *Ciſſus.*
Barberry. *Berberis vulgaris.*
Mulberry. *Morus nigra.*
Black grape. *Vitis labruſca.*
Fox grape. *Vitis vulpina.*
Black raſpberry. *Rubus idæus.*
Red raſpberry. *Rubus canadenſis.*
Upright blackberry. *Rubus fruticoſus.*

Running

Running blackberry. *Rubus moluccanus.*
Brambleberry. *Rubus occidentalis.*
Cranberry. } *Vaccinium oxycoccos.*
Buſh cranberry. }
Strawberry. *Fragaria veſca.*
Dewberry. *Rubus cæſius.*
Cloudberry. *Rubus chamæmorus.*

Theſe fruits are in great abundance in the uncultivated parts of the country; but they ſeem to arrive to their higheſt pertection of numbers, magnitude, and richneſs, in the new fields and plantations. There are other vegetables which are alſo *eſculent*, and valuable, chiefly on account of their *roots*, or *ſeeds*. Among theſe are the

Artichoke. *Helianthus tuberoſus.*
Ground nut. *Glicine apios.*
Long potatoe. } *Convolvulus batatas.*
Red potatoe. }
Wild leek.
Wild onion.
Wild oat. *Zizania aquatica.*
Wild pea.
Wild hop. *Humulus lupulus.*
Indian cucumber. *Medeola.*

MEDICINAL.

Many of the vegetables which are indigenous to this part of America, are applied to medicinal purpoſes. Of this nature are the

Bitter ſweet. *Solanum.*
Angelica. *Angelica ſylveſtris.*
Black elder. *Sambucus nigra.*
Red elder. *Viburnum opulus.*
Sarſaparilla. *Aralia.*
Pettymorrel. *Aralia nigra.*
Solomon's ſeal. *Convallaria.*

Maiden

Maiden hair. *Adiantum pedatus.*
Arſmart. *Polygonum ſagittatum.*
Wild roſe. *Roſa ſylveſtris.*
Golden thread. *Nigella.*
Mallow. *Malva rotundifolia.*
Marſhmallow. *Althæa.*
Lobelia, ſeveral ſpecies.
Senna. *Caſſia liguſtrina.*
Clivers. *Gallium ſpurium.*
Blue flag. *Iris.*
Sweet flag. *Acorus.*
Skunk cabbage. *Arum americanum.*
Garget. *Phytolacca decandra.*
Blood root. *Sanguinaria.*
Pond lily. *Nymphæa.*
Elecampane. *Inula.*
Black ſnake root. *Actea racemoſa.*
Seneca ſnake root. *Polygala ſenega.*
Pleuriſy root. *Aſclepias decumbens.*
Liquoriſh root.
Dragon root. *Arum.*
Ginſeng. *Panax trifolium.*

Ginſeng was formerly eſteemed a plant indigenous only to China and Tartary. In 1720, it was diſcovered by the Jeſuit *Laſitau*, in the foreſts of Canada; and in 1750, it was ſaved in the weſtern parts of Newengland. It grows in great plenty and perfection, in Vermont. The root has many virtues; but we do not find them to be ſo extraordinary, as the Chineſe have repreſented. It was a valuable article in the commerce of Canada in the year 1752, and large quantities were purchaſed in this ſtate but a few years ago; an injudicious method of collecting, curing, and packing it, has greatly injured its reputation; this, with the large quantities in which it was exported, have nearly deſtroyed the ſale.

To

To this account of medicinal plants, it may not be improper to subjoin those, which in their natural state, are found to operate as *poisons*; the most of which, by proper preparations, become valuable medicines. Of these we have the

Thorn apple. *Datura stramonium.*
Henbane. *Hyoscyamus niger.*
Nightshade. *Solanum nigrum.*
Ivy. *Hedera helix.*
Creeping ivy. *Rhus radicans.*
Swamp sumach. *Rhus toxicodendrum.*
Baneberry. *Actæa spicata.*
White hellebore. *Veratrum album.*

In addition to these, there is a great variety of plants and flowers, the names and virtues of which, are unknown. Some of our vegetables deserve a particular description, on account of their uncommon properties: Thus, the Bayberry (*myrica cerifera*) is distinguished by a fine perfume, and a delicate green wax. The Prickly Ash is valuable for its uncommon aromatic properties. The Witch Hazel (*hamamelis*) is endowed with the singular property of putting forth its blossoms, after the frost has destroyed its leaves. The Indian Hemp (*asclepias*) may be wrought into a fine, and strong thread. The Silk Grass another species of the *asclepias*, contains a fine soft down, which may be carded and spun into an excellent wick yarn. The berries of the common Sumach (*rhus*) are used to great advantage in medicinal applications, and in several kinds of dyes. It would be a very useful, but a laborious employment, for the botanists to give to the world an enumeration, and scientific description of our indigenous vegetables. The *Flora Americana*, would be the most valuable addition, that could be made to the works of the celebrated *Linæus*: But it cannot be completed without the united assistance of wealth, genius, time, and labour.

To

To this imperfect catalogue of our vegetables, I shall add some remarks on the magnitude, number, age, evaporation, emission of air, heat, and effect of the Trees.

MAGNITUDE.—The magnitude to which a tree will arrive, depends upon the nature of the tree, and of the soil. The following are the dimensions of such trees as are esteemed large ones of their kind, in this part of America. They do not denote the greatest, which nature has produced of their particular species,* but the greatest of those which are to be found in most of our towns.

Trees.	*Diameter.* Feet.	Inch.	*Height.* Feet.
Pine,	6	0	247
Maple,	5	9	
Buttonwood,	5	6	300
Elm,	5	0	
Hemlock,	4	9	
Oak,	4	6	
Baſſwood,	4	0	
Aſh,	4	0	
Birch,	3	0	

NUMBER.—The number or thickneſs of the trees, ſeems to depend chiefly on the richneſs of the ſoil. In ſome parts of the country they are ſo thick, that it is with difficulty we can ride among them. In other places, they have reſolved themſelves into trees of large dimenſions, which are generally at the diſtance of eight or ten feet from each other. On one acre, the number of the trees, is commonly from one hundred and fifty to ſix hundred and fifty; varying in their number, according to the richneſs of the ſoil, and the dimenſions the trees have attained. Eſtimating a cord to be four feet in height, and width, and

* A white pine was cut at Dunſtable in Newhampſhire, in 1736, the diameter of which was ſeven feet, eight inches. *Douglaſs' Summary*, Vol. II. p. 83.

and eight feet in length, the quantity of wood which is generally found on one acre, is from fifty to two hundred cords: Where the large pines abound, the quantity of wood is much larger than what is here ſtated; but theſe trees are never meaſured as cord wood, but always applied to other purpoſes.

AGE.—There is a circumſtance attending the growth of trees, which ſerves to denote their age, with great accuracy. The body of a tree does not increaſe by an univerſal expanſion of all its internal parts, but by additional coats of new wood: And theſe are formed every year, by the ſap which runs between the bark, and the old wood. When a tree is cut down, this proceſs of nature becomes apparent in the number of parallel circles, or concentric rings, which ſpread from the centre to the circumference of the tree. In many obſervations made by others, and by myſelf, upon trees whoſe ages were known, the number of theſe circles was found to agree exactly with the age of the tree.—By this method of computation, I have always found the pine to be the moſt aged tree of our foreſt, ſeveral of which were between three hundred and fifty and four hundred years of age. The largeſt trees of other ſpecies, are generally between two and three hundred years. In the more advanced periods of vegetable life, this method of computation often fails: The decays of nature generally begin in the central, which are the moſt aged parts. From them, the mortification gradually extends to others; and thus, the internal parts of the tree, die in the ſame order in which they were produced; the progreſs of death, regularly and ſteadily following the ſame order and courſe, which had been obſerved in the progreſs of life. In this ſtate of a tree, no computation can be made of its age: But it ſeems moſt probable, that the time of its natural increaſe and decreaſe, are nearly the ſame; and that the natural period of veg-

etable life, is double to that, which the tree has attained, when it first begins to decay at the heart.

EVAPORATION.—Besides the growth, there are other processes carried on by nature in vegetables, of which we have no suspicion, until their effects become apparent. This is the case with the evaporation which takes place from the woods, during the summer months. Every tree, plant, and vegetable, is then pouring into the atmosphere, an amazing quantity of fluid.—On the 12th of June, 1789, I put the end of one of the limbs of a small maple tree, into a bottle containing about one pint. That part of the limb which was within the bottle, contained two leaves, and one or two buds. The mouth of the bottle was stopped up with beeswax, that no vapour might escape. In five or six minutes, the inside of the bottle was clouded, with a very fine vapour; and in about half an hour, small drops began to collect on the sides, and run down to the bottom. At the end of six hours, I weighed the water which had been collected in the bottle during that time, and found it amounted to sixteen grains, troy weight.—The tree on which this experiment was made, was eight inches and an half in diamter, and thirty feet in height. To make an estimate of the quantity of water, thrown off from this tree into the atmosphere, in a given portion of time, I endeavoured to ascertain the number of leaves which it contained. With this view (after I had made some other experiments) I had the tree cut down; and was at the pains to count the leaves, which it contained: The whole number amounted to twenty one thousand one hundred and ninety two: Admitting the evaporation to be the same from the other leaves of the tree, as it was from those on which the experiment was made, the quantity of water thrown off from this tree in the space of twelve hours, would be three hundred and thirty nine thousand and seventy two grains.

grains.—Upon examining the number and dimenſions of the trees, which covered the ground where I made the experiment, I think it would be a moderate computation, to eſtimate them as equal both in magnitude and extent, on every ſquare rod, to four ſuch trees as that which I had examined. This will give ſix hundred and forty ſuch trees, for the quantity of wood contained on one acre. This eſtimation is leſs than the quantity of wood, which is generally found upon one acre of land, in this part of America.—The weight of one pint of water, is one pound avoirdupoiſe, or ſeven thouſand grains, troy weight; and eight ſuch pints make one gallon. Making the calculation upon theſe principles, it will be found that from one acre of land thus covered with trees, three thouſand eight hundred and ſeventy five gallons of water are thrown off and diſperſed in the atmoſphere, in the ſpace of twelve hours.

This computation, will not appear extravagant to thoſe, who have ſeen the great quantity of juice, which naturally flows out of ſome of our trees, when they are tapped in the ſpring. A man much employed in making maple ſugar, found that for twenty one days together, one of the maple trees which he tended, diſcharged ſeven gallons and an half each day. A large birch which was tapped in the ſpring, ran at the rate of five gallons an hour, when firſt tapped; and during the ſeaſon of the running of the ſap, it diſcharged ſixty barrels in one ſpring. The conſequence of this waſte of the juices, was the death of the tree, the enſuing ſummer. I have this account from the Hon. *Paul Brigham*, Eſq; Theſe accounts ſerve to ſhow, what a quantity of fluid, is naturally contained in ſome of our trees; and from a ſource ſo plentiful, a copious evaporation might naturally be expected.

Emission of Air.—Another curious operation, which nature carries on in vegetables, of the higheſt uſe, but

but wholly invisible to us, is the emission of a large quantity of air. The trees, vegetables, and flowers, while they are discharging a large quantity of water into the atmosphere, and, at the same time emitting or throwing off a much larger quantity of air. On the 15th of June, 1789, I put the same part of the maple tree into a bottle, as I had done in the experiment of June 12th. The bottle, with the limb of the maple thus enclosed, was then filled up with water; and immersed in a large drinking glass, which had been filled before: In this situation the bottle was inverted, and fixed so as to have its mouth about three inches under the surface of the water, in the drinking glass.—In fifteen minutes, air bubbles began to appear around the leaves of the maple; and soon after to ascend to the upper part of the bottle, and collect into larger bubbles; which, as they increased, resolved themselves into one. At the end of six hours, I found the quantity of water which had been forced out of the bottle, by the air which was collected in it, amounted to sixty one grains. The quantity of *air* therefore, estimated by its bulk, which was emitted from the limb of the tree, was to the quantity of *water* thrown off from the same limb, as sixty one to sixteen. Making the calculation in the same manner as before, this will give fourteen thousand seven hundred and seventy four gallons, as the quantity of air, thrown off in twelve hours, from one acre of land, thus covered with trees.—The purity and salubrity of this air is as remarkable as the quantity of it. It has been found that an animal will live five times as long in this kind of air, as in common air of the best quality. The purity of the atmosphere, is constantly impaired by the respiration of animals, by combustion, the putrefaction of bodies, and by various other causes. In such ways, the air over large and populous cities, is so greatly and constantly corrupted, that it would

soon

ſoon become unwholeſome and noxious to the inhabitants, if it was not removed, or purified. Nature has made abundant proviſion for this purpoſe, in the immenſe quantities of air, which new countries ſupply. The trees and vegetables perpetually produce it, in large quantities, and in the pureſt ſtate, and the winds carry it from one country to another, where it is moſt wanted.

HEAT.—The principle by which theſe operations are carried on, and which ſeems to have the greateſt effect in vegetation, is heat. Different vegetables require different degrees of heat, or different climates, to give them their greateſt degree of increaſe, and perfection. All of them ceaſe to grow, when their roots are in a ſtate of congelation. As ſoon as the warmth of the ſpring comes on, the ſap begins to aſcend in their trunks, and branches: A fermentation takes place in all their juices, and the vegetation becomes more or leſs rapid, as the heat of the ſeaſon advances. In Vermont, about the 10th of May, the maple, which is one of the moſt numerous and forward trees of the foreſt, begins to put forth its leaves. In one or two days after, the whole body of the woods, appear of a beautiful light green; and are conſtantly growing of a darker colour, for ten or fifteen days, when the darkeſt ſhades become fixed. During this period, the juices of the trees appear to be in a ſtate of high fermentation, their internal heat increaſes, and the effects of their vegetation appear in an infinite variety of buds, leaves, and flowers. To aſcertain the degrees of heat, in different trees, at different times of the year, and to mark their effects on the leaves, and fruits, the following experiments were made. With an auger, of one inch diameter, I bored an hole twelve inches long, into the body of the tree: In this hole, I encloſed a thermometer of Farenheit's ſcale, ſtopping the orifice with a cork, until the quickſilver had acquired the

degree

degree of heat, which prevailed in the internal part of the tree. The result of these experiments, is set down in the following Table.

Time 1789.	Heat in a Maple.	Heat in a Birch.	Heat in a Pine.	Heat in an Ash.	Remarks on the state of the Trees.
May 26, 27, 28	58	60	60	60	Leaves of the Maple, about one fixth of their natural growth. The other trees just in their bud, without any leaves.
June 30	72	72	73½	76	Leaves on each tree, fully grown.
July 30	70	67	69	68½	No appearance of decay in the leaves.
Sept. 15	62	56	61½	59½	Leaves on the Maple, Birch, and Ash, begin to decay, and turn white.
Octob. 8	45	48½	46	47	Leaves of the Maple turned yellow, and begin to fall. Leaves of the Birch turned white, and dead; and about one half of them fallen. Leaves of the Ash, all fallen. Leaves of the Pine, green through the year.
Nov. 16	43½	43½	43½	43½	No leaves on the Maple, Birch, or Ash. The heat of the trees become exactly the same with that of the earth, at the depth of ten inches below the surface.

From these observations it should seem, that the temperature or heat of trees, is not the same as that of the earth, or atmosphere; but is a heat, peculiar to this class of bodies. It is probably the same, in all trees of the same kind, in similar circumstances and situations. The degree and variations of it, seem to depend on the fermentation of the juices, and the state of vegetation. It is not improbable

the

the heat of the same kind of trees, may be different, in different latitudes: Whether this is the case or not, can be known only by observations, made in different countries.—This heat which prevails in trees, seems to be the great principle or agent, by which the two fluids of water and air, are separated from one another, and emitted from the trees. The quantity of water evaporated from the trees on one acre, in twelve hours, we have found to be three thousand eight hundred and seventy five gallons: That of air, fourteen thousand seven hundred and seventy four gallons. Before the evaporation, both these fluids seem to have existed together in a fixed state; making a common mass, every where dispersed through the body, limbs, and leaves of the trees. When the heat of the internal parts of the trees, became from fifty eight to sixty degrees of Farenheit's thermometer, the buds were formed, the leaves put forth, and the one fluid, seems to have been separated, or formed into the two fluids, of water and air. It seems probable from this, that both these fluids had the same origin, that heat was the principle, or cause by which they were separated; and that about fifty eight, is the degree of heat, which is necessary to begin the separation of the air from the water.

Effect.—The effect of this perpetual vegetation, growth, and decay of vegetables, is an extreme richness and fertility of soil. Neither destroyed or removed by the hand of man, the vegetable productions of the uncultivated parts of America, return to the earth by decay and death, and corrupt on the surface from which they grew. It is not only from the earth, but from the air and water, that trees and plants derive their nourishment, and increase: And where no waste has been occasioned by man or other animals, it is not impossible that the vegetables may return more to the earth, than they have taken from

from it; and inſtead of ſerving to impoveriſh, operate to render it more rich and fertile. Thus does the ſoil, in the uncultivated parts of the country, from age to age derive increaſe, richneſs, and fertility, from the life, growth, death, and corruption of her vegetables.—This effect has been ſo great in America, that when our lands are firſt cleared of the wood, we always find a black, ſoft, rich ſoil, of five or ſix inches depth; wholly formed of decayed or rotten leaves, plants, and trees. The extreme richneſs of this factitious ſoil, produces a luxuriancy of vegetation, and an abundance of increaſe in the firſt crops, which exceeds any thing that can afterwards be procured, by all the improvements of agriculture.

POWERS OF VEGETABLE LIFE.—The power with which nature acts in the productions of vegetable life, in this part of America, may be deduced from ſuch circumſtances as have been mentioned: From the immenſe extent of our foreſts; from the magnitude, number, and variety of our trees, and plants; from their rapid increaſe, and duration; and from the total want of ſandy deſerts, and barren places. Theſe and other circumſtances, denote an energy, a power in the vegetable life, which nature has never exceeded in the ſame climate, in any other part of the globe.

CHAP.

CHAP.

NATURAL HISTORY.—An Account of the Quadrupeds; with Observations on their Formation, Origin, Migration, Species, Magnitude, Disposition, and manifesting Powers. Birds, Fishes, Reptiles, and Insects.

THE uncultivated state of America was favourable to the productions of animal life. A soil naturally rich and fertile, and powers of vegetation extremely vigorous, produced those immense forests, which spread over the continent. In these, a great variety and number of animals had their residence. Fed by the herbs and productions of nature, unmolested by a few and untutored men, the productions of animal life every where appeared, in the various forms of quadrupeds, birds, fishes, and insects; and their increase and multiplication, became quick and rapid.

QUADRUPEDS.

OF that species of animals which are known by the name of quadrupeds, America contains nearly one half; Of these about thirty six, are found in Vermont. Our forests afford shelter and nourishment for the moose, bear, wolf, deer, fox, wild cat, racoon, porcupine, woodchuck, skunk, martin, hare, rabbit,

rabbit, weasel, ermine, [illegible] mole, and moose. In our rivers, ponds, and lakes, the beaver, musk-rat, mink, and otter, are to be found in large numbers.

The largest animal [illegible] in Vermont, is the moose. It seems to be of the same species as the elk [illegible] in general form, it resembles the horse. His head is large, the neck short; with a thick, short, and upright mane. The eyes are small; the ears are about long, very broad and thick; under the throat, there is a fleshy [illegible] the nostrils are large; the upper lip [illegible] and hangs over the lower. His horns are palmated, and when fully grown are about four or five feet from the head to the extremity: There are several tines or branches on each horn, which generally extend about six feet in width from each other. The horns weigh from thirty to fifty pounds, and are shed every year. The hoofs of the moose are cloven; his gait, is a long shambling trot; his course, very swift, and straight. When he runs, the rattling of his hoofs, is heard at a considerable distance; in miry places, his hoofs are spread several inches from one another; and he will with the greatest ease, that he leaps over the highest of our fences. The moose is generally of a grey, light brown, or mouse colour. The food of this animal is grass, shrubs, the boughs and bark of trees, especially the beech, which they seem to prefer above all others, and a species of maple which is called moose wood. In summer, they keep pretty much in families. In the winter, they herd together to the number of twenty or thirty, in a company: They prefer the coldest places; and when the snow is deep, they form a kind of yard, consisting of several acres, in which they constantly trample down the snow, that they may more easily range round their yard; and when they cannot come at the grass, they live on the twigs and bark of the trees. Their defence is

chiefly

chiefly with their fore feet, with which they strike with great force. The female is less than the male, and generally without horns. The rutting season is in autumn: The female generally brings forth her young at a birth in the month of April, which follow the dam a whole year. One of these animals in Vermont, was found by measure, to be seven feet high. The largest, are estimated by the hunters to weigh thirteen or fourteen hundred pounds.

The BEAR is frequently to be met with in this part of America, and is always of a black colour. It is not an animal of the most fierce, and carnivorous disposition. There have been instances in which children have been devoured by the bear; but it is only when it is much irritated, or suffering with hunger, that it makes any attack upon the human race. At other times, it will destroy swine and young cattle, but has not been known to make any attack upon men, but always aims to avoid their pursuit. The food of this animal is corn, sweet apples, acorns, and nuts. In the end of autumn, the bear is generally very fat, and chooses for the place of his retreat the hollow of a hollow tree, or some natural den, or cavern in the earth. In such a situation he uses no exercise, appears to be asleep, loses but little by respiration, and is always found without any provision; and it is not until the warmth of the spring returns, that he leaves his retreat, or goes abroad in quest of food. This animal is valuable for its flesh, grease, and skin. The female generally bears two cubs a year. The bear arrives to a great magnitude in this part of the continent. The largest of which the hunters give us any certain information, weighed four hundred and fifty six pounds.

One of the most common and noxious of all our animals, is the WOLF. In the form of his body, the wolf much resembles the dog. He has a long head, a pointed nose, sharp and erect ears, a short

and

and thick neck, with sharp and strong teeth. His eyes generally appear sparkling; and there is a ferocioufneſs, and a fierceneſs in his look. The colour of the wolf is commonly a dirty grey; with some tinges of yellow about his ears and legs.—This animal is extremely fierce, ſanguinary, and carnivorous. When a number of them aſſociate, it is not for peace, but for war and deſtruction. The animal, at which they moſt of all aim, is the ſheep. When they can find a flock of theſe, they ſeem to delight in ſlaughter; tearing their fleſh, and ſucking their blood after they are fully ſatisfied with the fat of their tender parts. They attack the deer, foxes, rabbits, and are enemies to all other animals; and their attacks are generally attended with the moſt horrid howlings.—They generally flee before the face of the human ſpecies; but when they have once taſted of human fleſh, they become more fierce, and raving, and ſeem to be inflamed with greater fury. In ſuch a ſtate, there have been inſtances in Vermont, in which the wolves have ventured to make their attacks upon men; but they generally retire upon their approach. They are not often to be ſeen in the day, but in the night venture into our yards, and barns.—Theſe animals are yet in great numbers, in this ſtate; they deſtroy many of our ſheep, in the night; and find a ſafe retreat in our woods, and mountains; but are gradually decreaſing, as our ſettlements increaſe, and extend.—The wolf is a very prolific animal. The female is in heat in the winter, and the male and the female never part. The time of geſtation, is about three months and an half; and the young whelps are found from the beginning of May, until the month of July. The hunters have ſometimes found in their dens, a male, a female, and a litter of nine young whelps. One of the largeſt wolves in Vermont, weighed ninety two pounds. There is nothing valuable in theſe animals but

but their skins, which afford a warm and durable fur.

The Deer is one of our most common and valuable animals. In the spring he sheds his hair, and appears of a light red; this colour gradually grows darker until autumn, when it becomes black, or cinereous brown; and remains thus through the winter. His horns are slender, round, projecting forwards, and bent into a curve; with branches or shoots on the interiour side. These branches do not commence, until the deer is three years old; from which period, a new one rises every year; and by this circumstance, the hunters compute their age. These horns are cast every spring; the new ones, in the course of a year, will grow two feet in length, and weigh from two to four pounds.—The amorous season with these animals, is in the month of September. From September to March, the bucks and does herd together; early in the spring they separate, and the does secrete themselves in order to bring forth their young; which generally happens in the month of April. The female generally bears two, and sometimes three, at a birth. The fawns are red, most beautifully spotted with white. They are easily tamed, and become as gentle and domestic as a calf.—The deer is an animal of great mildness, and activity. They are always in motion; and leap over our highest fences, with the greatest ease. The largest of which I have a particular account, weighed three hundred and eight pounds. The deer are numerous in Vermont, and on account of their flesh and skin, are of much value. The reindeer is not to be found in this part of the continent.—But there seems to be another species of the American deer, distinguished chiefly by its horns, and often by its colour. The horns of this deer are never extensive, broad, and branched, like those of the common deer: But they are round, thick, but little curved, and not

more

ages three feet ten or twelve inches in length. This species is generally larger than the other; several of them have large white spots, and some have been killed which were wholly white.

The fox abounds much in this part of America. The fur of this animal, and hunting of this animal are every where known. We have four kinds of foxes in Vermont.

The *Red Fox* bears upon a yellowish, or rather a straw colour. This is esteemed the common fox, and is the most frequently to be found. At its full growth in the fall, this animal weighs twenty pounds.

The *Grey Fox* resembles the other in form, and magnitude, and appears to differ from it only in colour, which is of a beautiful silver grey.

The *Cross Fox* resembles the other in form, and magnitude, but has a black streak, passing transversely from shoulder to shoulder; with another along the back, to the tail. The other parts of this animal are of a red, or more generally of a grey colour.

The *Black Fox* is the largest, and most valuable of all. The fur of this fox is the most fine, soft, and rich, of any. One of the largest of the black foxes, was found to weigh twenty three pounds.

The fox is a very voracious animal; devouring all kinds of poultry, birds, and animals, which they can overcome. Flesh, fruit, honey, and every part of the farmer's dairy are devoured by him with great avidity.—This animal is very prolific. The female is in season every year, in the winter; and generally produces in the month of April; the litter is generally from three to six.

The CATAMOUNT, seems to be the same animal, which the ancients called Lynx, and which is known in Siberia, by the name of Ounce. In the form of its body, it much resembles the common cat, but is of a much larger size. It is generally of a yellow

grey

grey colour, bordering upon a red or tawny, and is larger than our largest dogs. This animal is the most fierce and ravenous of any animals which we have in Vermont. Some years ago, one of these animals was killed at Bennington. It took a large calf out of a pen, where the fence was [illegible] and carried it off upon its back. With this load it ascended a ledge of rocks, the ascent of which was fifteen feet in height. Here the hunters found the cat upon an high tree. Discharging their guns at it, one of them wounded it in the leg. It descended with the greateſt agility, and fury, did not attack the men, but ſeized their dog by one of his ribs, broke it off in the middle, and inſtantly leaped up the tree again with aſtoniſhing ſwiftneſs and dexterity. The other hunter ſhot him through the head, but his fury did not ceaſe, but with the laſt remains of life.—Theſe animals have been often ſeen in Vermont; but they never were very numerous, or eaſy to be taken. Of their fecundity, I have no particular information. On account of their fierceneſs, activity, and carnivorous diſpoſition, the hunters eſteem them the moſt dangerous of any of our animals. The weight of one of them was eſtimated by the hunters, at one hundred pounds. The length of his body was about ſix feet, that of the tail, three; the circumference of the body was two feet and an half, and the legs were about thirteen inches long.

What is called the WILD CAT, is an animal, in moſt reſpects ſimilar to our common cats; but different in its diſpoſition, and dimenſions. It is much larger, ſtronger, and fiercer, than any of our domeſtic cats; and ſeems to be of the ſame diſpoſition, and colour, as the wolf. One of the largeſt of them was found by the hunter, to weigh fifty ſeven pounds.

The BLACK CAT does not appear to be diſtinguiſhed from the former, in any other reſpect than its

its colour. It is altogether black, and seldom grows to a large size, as the former. It seems to be a distinct species; is as fierce and ravenous as the other kind.—These animals are frequently found in the woods, very wild, extremely alert in climbing, of great activity and strength, but never can be tamed, or made to associate with our common cats. They are valuable only on account of their furs. The black cougar is called by the Indians, the *Wuttaneeg*. The largest of which I have any account, weighed twenty three pounds.

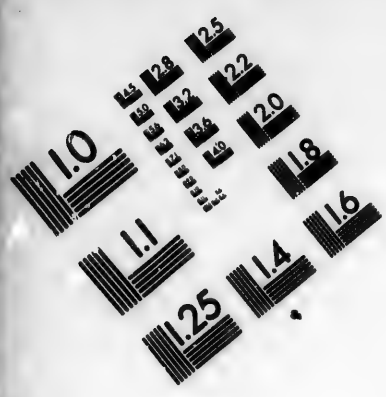
Another animal, which does not greatly differ in appearance from a wild cat, has been called the *Wolverine*. The body of this animal is about two feet and an half in length. It has a short tail, and is of the same colour as the wolf.—This animal is of a very fierce, and carnivorous disposition. Concealing himself among the rocks and bushes, or taking a station upon the limb of a tree, he watches for the approach of prey. If the deer, or the moose come within his reach, he darts upon their backs, fastens upon their neck, and with great dexterity opens their jugular veins with his teeth. This animal is scarce, and not to be found but in the northern and most uncultivated parts of the state. I have no account of its fecundity, magnitude, or other particulars.

The Raccoon, in its shape or general form, resembles the fox, but has a larger body, with thicker and shorter legs. The feet have five long and slender toes, armed with sharp claws. The males have generally a large white stripe, and the females a smaller one, which runs across the forehead. The tail is long, and round, with annular stripes in it. This animal dwells in the retired part of the woods, runs up the trees with great agility, and ventures to the extremes of the boughs. Its fur is thick, long, and soft; and of a dark grey colour. The weight of one of the largest in Vermont, was thirty two pounds.

pounds. It is often found in hollow trees, and its flesh is excellent food.

The PORCUPINE, or Hedgehog, is not uncommon in Vermont. What is singular and most distinguishing in this animal, are the quills with which he is armed. These quills are about four inches in length; and of the size of the quills of a pigeon. When the porcupine is attacked by an enemy, he places his head between his fore feet, and erects these quills all around, in the form of an hemisphere. He has no power to eject them from his body, or dart them against his enemy, as has been frequently said. But they are so loosely inserted in his flesh, and of such a particular construction, that they are easily extracted, and like a barbed dart stick fast, and work themselves into the flesh of any animal that touches their extremities; nor can they be easily withdrawn, without tearing the flesh, but by incision. On this account they prove extremely dangerous to the dog, or to any other animal that makes an attack upon the porcupine.—The colour of this animal, is grey: His motion is extremely slow. The female produces her young every year; the time of gestation is about forty days, and she generally brings forth three or four at a birth. One of the largest of these animals, weighed sixteen pounds: The flesh is said to be agreeable, and wholesome meat.

Another animal, which we frequently find in the fields, is the WOODCHUCK. This animal is about sixteen inches in length; its body is large, and round; its legs are short, and its fore feet are broad, and fitted for the purpose of burrowing into the earth.—The colour of the woodchuck is brown, his fat is extreme, the flesh is wholesome and palatable food, his fur is not very valuable. This animal resides in a hole which he digs in the ground, and feeds upon grass, corn, beans, and other vegetables. The female generally produces four or five at a birth. One



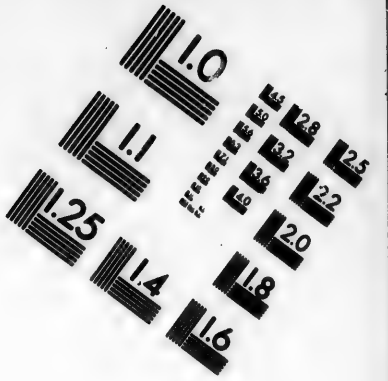
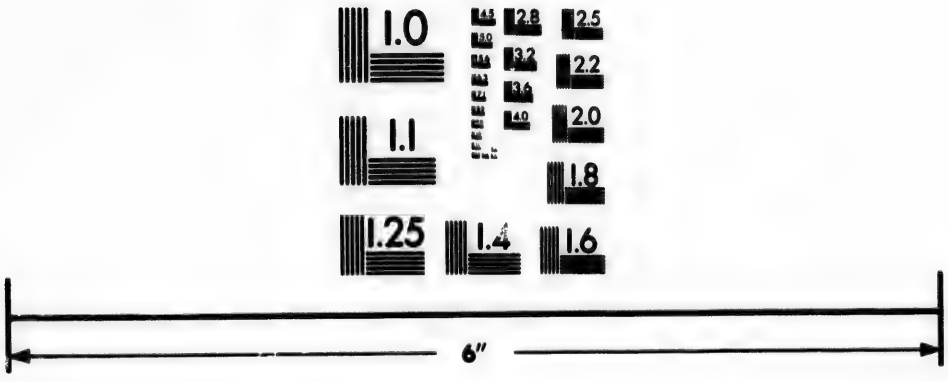


IMAGE EVALUATION
TEST TARGET (MT-3)



Photographic
Sciences
Corporation

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

of the fatteſt which I have ſeen, weighed eleven pounds: I believe this was one of the largeſt ſize.

The SKUNK is one of the moſt extraordinary animals, of which we have any account. It ſeems to be of the ſame ſpecies with the polecat, but is of a leſs ſize, and differs from it in ſeveral reſpects.—Its hair is long, and ſhining, of a clouded or dirty white, intermixed with ſpots of black. Its tail is long, and buſhy, like that of the fox. It lives chiefly in the woods, and hedges, but often burrows under barns and out houſes. When undiſturbed, this animal is without any ill ſcent, or diſagreeable effluvia. Their natural evacuations are not more nauſeous, than thoſe of other animals. Whole neſts of them will lie under the floor of a barn, and ſo long as they are undiſturbed, no diſagreeable odour will be perceived during the whole winter. Their fleſh, when it is properly dreſſed, is ſweet and nouriſhing.—When purſued or attacked, the ſkunk diſcovers its extraordinary powers, by a ſingular and moſt effectual method of defence. It emits a fluid of the moſt nauſeous and intollerable ſcent, that has ever been known. So odious, ſubtle, and penetrating, is this ill ſcented matter, that there is no animal which can long endure it, or will venture to approach the ſkunk, when he is throwing it out. It infects the air to the diſtance of half a mile all around: And no method has been found, to extract the ſcent out of any object, on which the odious fluid has been thrown. Time and air, after a long period, affords the only complete remedy. By accurate diſſection lately made by Dr. *Mitchell*, it has been found that this ill ſcented fluid, is entirely diſtinct from the urine. It is contained in two bags, ſituated in the poſterior parts of the body; and ſurrounded by the circular muſcles in ſuch a manner, that by their conſtriction, the fluid is forced out with great velocity and force. The

urinary

urinary organs are totally distinct from these bags.* The female produces a litter every year; and they generally amount to five or six in number. One of these animals weighed seven pounds and an half, but whether it was one of the largest size, I cannot determine.

The MARTIN is an animal peculiar to cold climates. It is found in large numbers in Vermont, but chiefly in the most retired, and thickest parts of the woods. Its colour is a dark brown, with tinges of yellow; sometimes the colour approaches to a black. The fur is fine, soft, and much esteemed.—This animal is from eighteen to twenty inches in length. A large one was found to weigh five pounds and one quarter of a pound. The female produces from three to six young ones, at a litter. The martin and sable denote the same animal in Vermont.

The HARE is about eighteen inches in length; It is always of a white colour, and has a fine, and beautiful fur; Its flesh is a very nourishing, and delicious food. This animal is very prolific. The time of gestation is about thirty days; The female bears three or four at a birth, and has several litters in the course of a year. A large hare weighs eight pounds. The hunters find large numbers of these animals, in this part of the country.

The RABBIT is something less than the hare, but in greater numbers. His colour, both in summer and winter, is a light grey, or a dirty white. The length of the rabbit, is about sixteen or seventeen inches; one of the largest of them, weighed seven pounds. The rabbit is more prolific than the hare. The female bears sooner, and has from four to eight, at a litter. These animals are readily found, in every part of the state.

The WEASEL has the form and appearance, of a squirrel; but is more slim, and active. His eyes have

* American Museum, Vol. V. p. 487.

have an uncommon sprightliness; his look is keen, and piercing; and his motions are so quick, and various, that the eye can scarcely follow them. This animal is of a red or brown colour, and has a white belly. Its fur is very fine, and soft. His food is corn, nuts, eggs, and all kinds of small animals. The weasel is often found in hollow trees, and he frequently enters into houses, barns, and other buildings, in search of grain, chickens, mice, and young animals. In Vermont, the weasel is about twelve inches in length; very narrow and slim, and weighs about twelve ounces. The female bears three, four, or five, at a birth; but they do not appear to be very numerous.

The ERMINE is the most beautiful quadruped, which is seen in our woods. In its form, dimensions, activity, and fecundity, it resembles the weasel, but is rather larger; one of them weighed fourteen ounces. Its colour is a beautiful white. The tail is tipped with a beautiful black. Some of these animals have a stripe of dark brown, or mouse colour, extending along the back, from the head to the tail; the other parts being perfectly white. This little, brisk, light, and beautiful animal, has the most fine and delicate fur, that can be imagined; and the animal itself is one of the greatest beauties of nature.

Of the SQUIRREL we have four or five species; grey, black, red, striped, and flying.

The *Grey Squirrel* is the largest, and most common. This squirrel is about thirteen or fourteen inches in length, with a large bushy tail, as long as the body. It is of a beautiful silver grey colour, and has a fine soft fur. Its nest is in the crotch, or hollow of a tree; its food, corn, acorns, and nuts. It lays up a store of these provisions against winter, in the hollow of old trees. The female bears her young in the spring, and has generally three or four at a birth.

The

The largeſt of theſe grey ſquirrels, when they are fully fatted in the fall, weigh three pounds and an half.

The *Black Squirrel* reſembles the former in every reſpect, but its colour, and ſize. It is wholly black, without any change in its colour, at any time of the year. Its ſize is ſomething leſs than that of the grey ſquirrel: The largeſt I have known, weighed but two pounds and an half.

The *Red Squirrel* does not appear to differ from the black, in any other particular, but the colour.

The *Striped Squirrel* is ſmaller than either of the other. The largeſt of theſe does not weigh more than nine or ten ounces. This ſquirrel digs a hole in the ground, for the place of his reſidence. He provides a ſtore of nuts, acorns, and corn, againſt winter. Theſe are carefully depoſited in his neſt, and he reſides in the earth, during the ſeverity of the ſeaſon.

The *Flying Squirrel* is the moſt curious, and beautiful of all; and of the ſame ſize as the ſtriped one. This ſquirrel has a kind of wings, by which he will paſs from one tree, to another, at the diſtance of thirty or forty feet. None of our animals have a more fine or delicate fur, than this little ſquirrel. He feeds on the buds, and ſeeds of vegetables; and generally has his neſt in decayed, and rotten trees.

The MOLE, SHREW MOUSE, GROUND MOUSE, and FIELD MOUSE, are to be found in this part of America: They are ſo ſmall, and well known, that they do not require a particular deſcription. The hunters inform me, that there are ſeveral kinds of mice to be found in the woods, which have not been deſcribed: But neither the grey rat, the black rat, or the water rat, is to be found in any part of the ſtate.

The quadrupeds which have been deſcribed, are to be found only upon the land. There are others

of

of an *amphibious* nature, which live upon the land, or in the water; these are to be found in the rivers, ponds, and lakes.

One of the most sagacious and useful of these, is the BEAVER. On account of his natural constitution and instincts, his social nature, the works he performs, and the uses to which he is applied, the beaver is the most extraordinary of all our animals, and deserves a more particular description.

The American beaver is between three and four feet in length, and weighs from forty to sixty pounds. His head is like that of a rat, inclined to the earth; his back rises in an arch between his head and tail. His teeth are long, broad, strong, and sharp. Four of these, two in the upper, and two in the under jaw, are called *incisors*. These teeth project one or two inches beyond the jaw, and are sharp, and curved, like a carpenter's gouge. In his fore feet the toes are separate, as if designed to answer the purposes of fingers and hands: His hind feet are accommodated with webs, suited to the purpose of swimming. His tail is a foot long, an inch thick, and five or six inches broad: It is covered with scales, and with a skin similar to that of fish.

In no animal does the *social instinct and habit* appear more strong, or universal, than in the beaver. Wheresoever a number of these animals are found, they immediately associate, and combine in society, to pursue their common business, and welfare. Every thing is done, by the united counsels, and labours, of the whole community. Their societies are generally collected together, in the months of June and July; and their numbers when thus collected, frequently amount to two or three hundred; all of which, immediately engage in a joint effort, to promote the common business and safety of the whole society; apparently acting under a common inclination, and direction. When the beaver is found

in

in a ſolitary ſtate, he appears to be a timid, inactive, and ſtupid animal. Inſtead of attempting any important enterprize, he contents himſelf with digging a hole in the earth for ſafety and concealment. His genius ſeems to be depreſſed, his ſpirits broken, and every thing enterprizing is loſt in an attention to perſonal ſafety; but he never looſes his natural inſtinct to find or form a pond.* When combined in ſociety, his diſpoſition, and powers aſſume their natural direction, and are exerted to the higheſt advantage: Every thing is then undertaken, which the beaver is capable of performing.

The ſociety of beavers ſeems to be *regulated and governed*, altogether by natural diſpoſitions, and laws. Their ſociety, in all its purſuits and operations, appears to be a ſociety of peace and mutual affection; guided by one principle, and under the ſame direction. No contention, diſagreement, contrary intereſts, or purſuits, are ever ſeen among them; but perfect harmony and agreement, prevails through their whole dominions. The principle of this union and regulation, is not the ſuperiour ſtrength, art, or activity of any individual; Nothing has the appearance, among them, of the authority, or influence of a chief, or leader. Their aſſociation, and management, has the aſpect of a pure and perfect democracy; founded on the principle of perfect equality, and the ſtrongeſt mutual attachment. This principle ſeems to be ſufficient to preſerve the moſt perfect harmony, and to regulate all the proceedings of their largeſt ſocieties.

When theſe animals are collected together, their firſt attention is to *the public buſineſs and affairs* of the ſociety, to which they belong. The beavers are amphibious.

* A young beaver was tamed in the ſouthern part of this ſtate. He became quiet, inoffenſive, and without any diſpoſition to depart. But was moſt of all pleaſed, when he was at work, forming a dam, in a ſmall ſtream near the houſe.

amphibious animals, and muſt ſpend one part of their time in the water, and another upon the land. In conformity to this law of their natures, their firſt employment is to find a ſituation, convenient for both theſe purpoſes. With this view a lake, a pond, or a running ſtream of water, is choſen for the ſcene of their habitation, and future operations. If it be a lake, or a pond that is ſelected, the water is always of ſuch depth, that the beavers may have ſufficient room to ſwim under the ice; and one, of which they can have an entire, and undiſturbed poſſeſſion. If a ſtream of water is choſen, it is always ſuch a ſtream, as will form a pond, that ſhall be every way convenient for their purpoſe. And ſuch is their foreſight and comprehenſion of theſe circumſtances, that they never form an erroneous judgment, or fix upon a ſituation that will not anſwer their deſigns and convenience.—Their next buſineſs, is to conſtruct a dam. This is always choſen, in the moſt convenient part of the ſtream; and the form of it, is either direct, circular, or with angles, as the ſituation and circumſtances of the water and land, require. And ſo well choſen is both the place, and the form of theſe dams, that no engineer could give them a better ſituation and form, either for convenience, ſtrength, or duration.—The materials of which the dams are conſtructed, are wood, and earth. If there be a tree on the ſide of the river, which would naturally fall acroſs the ſtream, ſeveral of the beavers ſet themſelves with great diligence, to cut it down with their teeth. Trees to the bigneſs of twenty inches diameter, are thus thrown acroſs a ſtream. They next, gnaw off the branches from the trunk, that the tree may aſſume a level poſition. Others, at the ſame time, are cutting down ſmaller trees, and ſaplings, from one to ten inches diameter. Theſe are cut into equal and convenient lengths. Some of the beavers drag theſe pieces of wood to

the

the side of the river, and others swim with them to the place, where the dam is to be built. So many as can find room, are engaged in fixing one end of their stakes; and as many more in raising, fixing and securing the other end. While many of the beavers are thus labouring upon the wood, others are equally engaged in carrying on the earthen part of the work. The earth is brought in their mouths, formed into a kind of mortar with their feet and tails, and spread over the vacancies between the stakes. Saplings, and the main branches of trees, are twisted and worked up with the mud and flags, until all the vacancies are filled up; and no crevice is left in any part of the work, for the water to find a passage through. The magnitude and extent of the dams, which the beavers thus construct, is much larger than we should imagine was possible to be effected by such labourers, or instruments. At the bottom, the dam is from six to twelve feet thick; at the top, it is generally two or three feet in width. In that part of the dam, which is opposed to the current, the stakes are placed obliquely; but on that side where the water is to fall, the stakes are placed in a perpendicular direction, and the dam slopes the same form, and position, as the stakes. The extent of these works, is from forty to an hundred feet in length; and always of such an height, as to effect the purposes they have in view. The ponds which are formed by these dams, are of all dimensions, from four or five, to five or six hundred rods. They are generally spread over lands abounding with trees, and bushes, of the softer wood: Maple, birch, alder, poplar, willow, &c. The better to preserve their dams, the beavers always leave sluices, or passages near the middle, for the redundant waters to pass off. These sluices are generally about eighteen inches in width, and depth; and as many

many in number, as the work of the stream generally requires.

When the public works are completed, their *domestic concerns and affairs* next engage their attention. The dam is no sooner completed, than the beavers separate into small bodies, to build cabins, or houses for themselves. These houses are built upon piles, along the borders of the pond. They are of an oval form, resembling the construction of an haycock; and they vary in their dimensions, from four to ten feet in diameter, according to the number of families they are designed to accommodate. They are always of two stories, generally of three, and sometimes they contain four. Their walls are from two to three feet in thickness at the bottom, and are formed of the same materials as their dams. They rise perpendicularly a few feet, then assume a curved form, and terminate in a dome or vault, which answers the purpose of a roof. These edifices are built with much solidity and neatness. On the inward side, they are smooth, but rough on the outside, always impenetrable to the rain, and of sufficient strength to resist the most impetuous winds. The lower story is about two feet high. The second story has a floor of sticks, covered with mud. The third story is divided from the second in the same manner, and terminated by the roof raised in the form of an arch. Through each floor, there is a communication, and the upper floor is always above the level of the water, when it is raised to its greatest height. Each of these huts have two doors; one on the land side, to enable them to go out and procure provisions by land; another under the water, and below where it freezes, to preserve their communication with the pond. If this, at any time, begins to be covered with ice, the ice is immediately broken, that the communication may not be cut off with the air.

In their huts, the *families* of the beavers have their residence. The limits of their cabins, containing the family, consisting generally of five or six beavers; and the largest of the buildings, will contain from twenty to thirty. No society of animals, can ever appear better regulated, or more happy, than the family of beavers. The male and the female always pair. Their selection is not a matter of chance, or accident; but appears to be derived from taste, and mutual affection. In September, the happy couple lay up their store of provisions, for winter. This consists of bark, the tender twigs of trees, and various kinds of soft wood. When their provisions are prepared, the season of love and repose commences. And during the winter they remain in their cabins, enjoying the fruits of their labours, and partaking in the sweets of domestic happiness. Towards the end of winter, the females bring forth their young, to the number of three or four. Soon after, the male begins to gather fish, and vegetables, as the spring opens; but the mother remains at home, to nurse, and rear up the offspring, until they are able to follow their dams. The male occasionally returns, but not to tarry, until the fall of the year. But if any injury is done to their public works, the whole society are soon collected, and join all their forces to repair the injury, which affects their commonwealth.

Nothing can exceed *the peace and regularity*, which prevail in the families, and through the whole commonwealth of these animals. No discord or contention ever appears in any of their families. Every beaver knows his own apartment, and store house, and there is no pilfering or robbing from one another. The male and the female are mutually attached, never prove unfriendly, or desert one another. Their provisions are collected, and expended, without any difficulty. Each knows its own family.

ity, industry and property; and they are strong enough to injure, oppose, or interrupt each other. The same order and tranquility prevail through the countries which different species of beavers inhabit; none make war upon the brutes, or upon any other animals. When they are attacked by their enemies, they instantly plunge into the water, to elude their pursuit: And when they cannot escape, they fall an easy sacrifice.

In the *arts* necessary for their safety, they discover a genius to great advantage. Their sagacity, foresight, solidity, harmony, and dexterity of their dams, are equal to any thing of the kind which does not exceed performed by rational beings. They always form a right judgment, which way the tree will fall; and when it is nearly cut down, they appoint one of their number, to give notice by a stroke of his tail, when it begins to fall. With their teeth they measure the length of their dams, of the lodges they are to make of a breath that is required in their works, and of the length of the timber that is necessary to repair it. When an enemy approaches their dominions, the beaver which makes the discovery, by striking on the water with his tail, gives notice to the whole village of the approaching danger; and all of them instantly plunge into the water. And when the beavers are passing through their country, some of their number appear to be centinels, to give notice of their approach.

The colour of the beaver is different according to the different climates, which they inhabit. In the most northern parts, they are generally black; in Vermont they are brown; and their colour becomes lighter as we approach towards the south. Their fur is of two sorts, all over their bodies. That which is longest, is generally about an inch long; but on the back, it sometimes extends to two inches, gradually shortening towards the head and tail. This

part

part is coarse and of little use. The other part of the fur consists of a very fine and thick down, of about three quarters of an inch long, so soft that it feels like silk, and is that which is used in manufactories. Castor, of so much use in medicine, is produced from the body of the beaver. It is contained in four bags in the lower belly.

The largest of these animals, of which I have any certain information, weighed sixty three pounds and an half. But it is only in a situation remote from, and undisturbed by the frequent appearance of men, that they attain their greatest magnitude, or their highest perfection of fur. The beaver has deserted all the southern parts of Vermont, and is now to be found only in the most northern, and least cultivated parts of the state.

The otter seems to be a smaller kind of beaver, resembling it in every thing but its tail. This is also an amphibious animal, and feeds on fish and roots. It lives frequently in fresh water, but is less fearful of the approaches of men, and affords a very strong musk. These animals are to be found in very considerable numbers, in our creeks and lakes, but are much less numerous, than they were formerly. The muskrat, in this part of America, is about fifteen inches in length; the greatest magnitude I have known is five pounds and three quarters of a pound. A litter of these muskrats will frequently amount to four, five, and sometimes six.

Another of our amphibious animals, is the Mink. It always resides in the neighbourhood of rivers, ponds, or lakes, and provides a place of residence, by burrowing into the earth.—The mink is about twenty inches in length, his legs are short, his colour brown, and his fur is more valuable than that of the muskrat. One of the largest which I have known, weighed four pounds and one quarter of a pound. The female produces two or three, at a birth.

The

The OTTER is a voracious animal, of great activity and fierceness. When it is fully grown, it is five or six feet long; with sharp and strong teeth, short legs, and membranes in all the feet, and fitted either for running, or swimming.—The otter explores the rivers and ponds in search of fish, frogs, water rats, and other small animals; and when these are not to be had, he lives on the boughs and bark of young, or aquatic trees. He has generally been ranked among the amphibious animals, which can live either in the air, or water; but he is not properly an amphibious animal, for he cannot live without respiration, any more than the land animals. The female is in heat in the winter, and bears her young in the month of March; the litter generally consists of three or four. The fierceness and strength of the old otters, is such, that the dog can seldom overcome them: And when they cannot escape, they will attack the hunter with great rage.—The colour of this animal is black, and its fur is much esteemed. The otter formerly abounded very much in our creeks, and rivers; and especially in those, which emptied themselves into Lake Champlain. On this account, one of them still bears the name of *Otter-creek*; but the animal is now become scarce. The largest otter, of which I have a particular account, weighed twenty nine pounds and an half.

To this account of the quadrupeds of *Vermont*, I shall subjoin some reflections on the general state of these animals, in America.

The enumeration very imperfect.—Our accounts of the quadrupeds in this, and in every part of America, must be viewed as greatly imperfect. The descendants of Europe have settled along the sea coasts, and they have penetrated to the lakes, and most of the navigable rivers. But the internal parts of South-america, are but little known: And all that immense tract of country, which lies to the north, and to the west

mult of the lakes, is wholly unexplored. It is not to be doubted, but those extensive regions, abound with quadrupeds. Of what species, and how numerous, we cannot so much as conjecture. When the country shall be fully explored, and when all naturalists shall have visited and examined the internal parts, the history of the animals of America, may be brought to some perfection; but it is far from it, at present. All the animals which have been enumerated, are only those, which are frequently found, in a small part of the continent.—That an animal of great and uncommon magnitude, has existed in Kentucky, and in Siberia, is certain from the bones of the animal which yet remain. On the banks of the Ohio, and in many places further south, tusks, grinders, and skeletons, of an enormous size, are to be found in great numbers. Some of them lie upon the surface of the ground, and others are five or six feet below it. Some of the tusks are near seven feet long, one foot and nine inches at the base, and one foot near the point, the cavity at the base, nineteen inches deep. From the size and thickness of these bones, it is certain that they could not belong to the elephant, but denote an animal five or six times as large, and of the carnivorous kind.—We have the testimony of the Indians, that such an animal, still exists in the western parts of America: And it would be contrary to the whole economy of nature, to suppose that any species of her animals, is become extinct. This animal must formerly have been numerous, at those places, where their bones are found in such numbers. The probability is, as the means of subsistence were destroyed, they removed further to the westward. But until those parts of America shall be explored, little information is to be expected concerning this animal, of the most enormous bulk. And we may as well call it the *Mammoth*, as by any other name; or the *Pseudo Elephant*, as it

has

that be banished by Dr. Linnæus from this head from many other considerations, it appears that the enumeration of the American quadrupeds is extremely imperfect.

Every [illegible] The animals which are found on the face of the earth, are fixed by nature, to the climate and country, where they reside. Animal, or vegetable, has a constitution adapted to every country: And there are none, but what are suited to some particular part of the earth, where they will arrive to their greatest perfection. A camel is prejudiced, for the burning sands of Arabia; and the reindeer will flourish the best in Lapland and Hudson's Bay, and those northern countries, where the cold is the most intense. The origin therefore of different quadrupeds, is to be sought in those climates, that appear to be the best adapted to their growth and multiplication. There are animals in the torrid zone in America, which are never found in any other part of the earth. This is the case with the Tapir of Brasil, the Puma and Jaguar, the Llama, and Paco. These animals have never wandered into any other part of the globe. They are therefore to be esteemed indigenous, or natural to the hot climates of America. The same is the case with the animals of the torrid zone in Asia, and Africa. The elephant, and rhinoceros, are productions of Asia. The deserts of Lybia and Biledulgerid in Africa, may be termed the native country of lions, tygers, and panthers. No part of the climates of America is so intensely hot, or sandy, as to render it the proper country for the production or increase of animals, so fierce and noxious. These quadrupeds of hot climates, have never wandered from the one country, to the other: Not because they could not find a passage, but because they must have passed through a climate, the cold of which, being such as they could not endure, was an effectual bar to their passage.—

There

There are other quadrupeds which are common to America, to the north of Asia, and to Europe. Of this kind are the buffalo, white bear, carabou, black bear, elk, moose, red deer, fallow deer, wolf, fox, glutton, lynx, wild cat, beaver, badger, red fox, grey fox, black fox, otter, monax, vitou, porcupine, martin, water rat, weasel, ermine, flying squirrel, mole, and mouse. If we add the unknown animal, which we have called the mammoth, the number of thole quadrupeds which are common to both hemispheres, will amount to thirty. All of them, are the quadrupeds of cold countries, fitted by nature to that climate, through which the paſſage muſt have been, from the one country to the other. The original ſituation therefore of theſe quadrupeds, muſt have been a cold country. But whether they paſſed from the northeaſtern parts of Aſia, into America; or, whether they iſſued from the northweſt parts of America, into Aſia; we have no way to determine. The probability is equal, upon either ſuppoſition. All that we can determine is, that they were originally the quadrupeds of a cold climate.

Migration.—Animals of every kind when oppreſſed by hunger, harraſſed by their enemies, or when they can find a more comfortable ſituation, will migrate from one country to another. Their migration when choſen and voluntary, is always with a view to better accommodations; to a ſituation more favourable for food, growth, and multiplication. Directed by the hand of nature, their natural progreſs is not to a worſe, but to a better ſituation. They do not leave their own country, to ſettle in one leſs ſuited to their ſubſiſtence, and increaſe; but to acquire greater advantages; an increaſe of food, numbers, and vigour.—Whether the migration of quadrupeds then was from Aſia, or from America, there can be no doubt, but that they found in the country to which they repaired, a climate, ſoil, and means of

subsistence, equally favourable to them, as those which they left. Had there been any very great difference in the provisions and accommodations of nature, in either country, the quadrupeds that could easily migrate, would not have remained, for any considerable time, common to them both.—Nothing therefore can be less probable, or more contrary to the laws, tendencies, and operations of nature, than the European idea first introduced by M. Buffon, that the quadrupeds of Europe migrated into a country in America, where every thing was adapted by nature, to their diminution, degradation, and decrease. Had not the northern parts of Asia, and America, been well suited to the subsistence, vigour, and increase, of these quadrupeds, there would not have been any voluntary migration, from the one to the other; nor would these animals have remained, for so long a time, common to them both.

Species.—How far nature has proceeded in the production of quadrupeds, we have not as yet, sufficient information to determine. There may be many species, yet unknown, in those parts of the earth which have not been explored: Nor is the enumeration complete, in those countries which are known. The most that has been done in this branch of natural history, is to be found in the celebrated work of M. Buffon. As the result of his inquiries and information, this able philosopher concludes that the whole number of quadrupeds, which are spread over the face of the earth, will form about two hundred different species or kinds.* Of these, one hundred are found in America, and about seventy five are peculiar to it.—If the power, the force, or the vigour of animated nature, is to be estimated by the species of quadrupeds, which different countries contain, the conclusion will be, that nature has acted with the greatest vigour and energy in America.

* Vol. IX. 41.

ica. In the different climates in America, nature has produced seventy five species of quadrupeds: The number of those which are peculiar to the other parts of the globe, are one hundred. The dimensions of America, compared with the dimensions of Asia, Africa, and Europe, by the computation of the modern geographers, are as one hundred and forty one to two hundred and forty nine.* The ratio of one hundred and forty one to two hundred and forty nine is the same as seventy five to one hundred and thirty two. And so many species should be found, in the other parts of the globe, to preserve an equality. But this is thirty two more, than nature has produced. In respect then, to the different species of quadrupeds, if we are to judge by any enumeration which has yet been made, the greatest force and vigour of nature is found in America.†

MAGNITUDE.—The magnitude which any animal will attain, seems to depend much upon its original constitution, the climate, and proper nourishment.—In the original constitution of each animal, the Creator seems to have established certain laws, respecting its form, generation, expansion, and support. The proper magnitude of the animal, is therefore assigned by nature, to each species: In this way, the original limits are fixed; above, or below which, no individual of that species shall rise, or fall. Within these limits, those variations may take place, which we mean to express, when we call the animal great, or small. But no circumstance will reverse the laws of nature, enable the different species of animals to exchange their proper form, and magnitude;

* Guthrie's Geography, p. 29.

† The enumeration of quadrupeds seems to be too imperfect to afford any accurate calculations of this kind. According to M. Buffon's latest conclusions, in his *Epoques de la Nature*, there are three hundred species of quadrupeds. America according to the Abbe Clavigero, contains about one half of these.

tude; to debase the ox into a mole, or to exalt the mole to the size of the ox.—Nature has also fitted each quadruped for the climate in which it was originally placed; and in that climate only, will it attain its proper perfection. The lion would lose its fierceness and perish, if it was removed to Lapland; and the reindeer would diminish, and die, if it was carried to the sandy deserts of Africa. In those climates only, to which nature has adapted each animal, will it attain its greatest magnitude, and most perfect form.—The animal, to which nature has thus assigned its proper constitution, and climate, must be preserved and supported by proper food, or nourishment. A deficiency here, will bring on leanness, impotency, a diminution of size, and a gradual waste and consumption of the whole species. But when the climate, and the food, are both suited to the natural constitution of the animal, their joint influence will produce the greatest size or magnitude, that species will admit.

By comparing the magnitudes of such quadrupeds in Europe, and in America, as are common to both, and derive their support from the hand of nature, we shall of consequence have another comparative view of the vigour and force, to which animated nature arrives, in each country. Several of those quadrupeds, whose weight has been ascertained in Vermont, M. Buffon has given us the weight of in Europe. They are these,

	Weight in Europe.	Weight in Vermont.
	lb. oz.	lb. oz.
The Bear	368 7	456
Wolf	69 6	92
Deer	288 8	308
Fox, red	18 6	20
Porcupine	2 2	16
Martin	1 9	5 4
Polecat	3 2	7 8

Hare

	Weight in Europe.	Weight in America.
	lb. oz.	lb. oz.
Hare	7 6	8
Rabbit	3 4	7
Weasel	0 2	1
Ermine	0 2	1
Flying Squirrel	0 2	1
Beaver	18 5	63
Otter	8 9	29

From this comparison it appears, that every one of these animals is larger in America, than it is in Europe. The inference is clear, and decisive. It is in America, and not in Europe, that these quadrupeds of a cold climate, attain their greatest magnitude, and highest perfection.

If the comparison should be made, between the quadrupeds of the torrid zone, the reverse will be found to be the case. The elephant, the rhinoceros of Asia, are much larger than the quadrupeds of Peru and Brasil. The truth is, America is the most favourable to the productions, and growth, of the quadrupeds of cold climates; Asia is the most favourable to the productions, and growth of the quadrupeds of a hot climate. But the greatest of all animals, the Mammoth, was not an animal of the torrid, but of the temperate zone; and was the production of both countries, of Asia, and of America.

Nature and Disposition.—Most animals have a particular disposition, and character assigned to them by nature, indelibly fixed, and which distinguishes the whole species. Thus some are naturally fierce, sanguinary, and carnivorous; while others are mild, temperate, and gentle: And all of them, are not a little influenced, by the climate they inhabit.—In the hottest climate, and in the burning sands of Africa, the most ravenous, and the fiercest animals abound. The lion, the tyger, and the panther, are there, in their greatest size, their largest numbers,

numbers, and most extreme fierceness. In such places, the vegetables also contain their strongest qualities; the drugs, perfumes, and poisons, are the most active, subtle, and powerful.—In America, every thing in her vegetables, fruits, and animals, is more mild, and temperate. The quadrupeds that most abound, are the lama, paco, buffalo, elk, deer, fox, beaver, hare, rabbits, and squirrels; animals, marked with a mildness, and gentleness of character. Those that are the most fierce, the bear, the wolf, the wildcat, the otter, the tiger, or cuguar, are less numerous in it, make them attack upon men, unless they are impelled to it by extreme hunger, provocation, or self defence.—It was not therefore with the most fierce and ravenous animals, that America abounded. Her quadrupeds were of a more mild, and temperate disposition. To these, her climate gave the greatest size, the highest perfection, and the largest increase.

INCREASE AND MULTIPLYING POWER.—The increase and multiplying power of animals, is derived partly from nature, and partly from situation, and other circumstances. Nature has made those animals which are the most large, fierce, and noxious, the least apt to multiply. The smaller and more useful any quadruped is, the more rapid is its increase. All of them bring forth their young, at that season of the year, when nature has made the most suitable and ample provision, for their food and support. And then they do multiply with the greatest rapidity, when they are the least molested by man.—But whatever be their multiplying power, it would require a long period of time, before they would arrive at that increase of numbers, in which their progress would be checked, by the want of food. They would naturally spread over the whole continent, before they arrived to such a state. This they had done in every part of America, when it

was

was first discovered by the Europeans; Every part of the continent, fitted for their nourishment and growth, abounded with them. How far nature may proceed this way, or what is the greatest number of quadrupeds, that the uncultivated state of any country will support, we have no observations to determine. But it seems probable, that the *maximum* had already taken place; that America contained her full number of quadrupeds. No observations or phenomena, denote that there has been any increase of these animals, in the uncultivated parts of the continent, since its first discovery; or that they ever were more thick and numerous in any other part of the globe. How long a period nature required to advance to this state in America, we have no data to determine. But if we may judge of the energy with which she acts, from the effects of her multiplying power, the conclusion will be, that in no country has she displayed greater powers of fecundity than in America. These circumstances denote an high antiquity, in the origin of the American quadrupeds; and a great fertility in that climate and country in which they have attained their greatest numbers, their greatest magnitude, and their greatest fecundity.

BIRDS.

THE birds which abound in every part of America, make a curious and beautiful part of her natural history. *Catesby* has given an elegant description of the birds of Carolina. *Belknap* has furnished a good catalogue of those of Newhampshire. Most of the birds which have been mentioned by these authors are to be found in all the northern states. As we approach further towards the north, a great number and variety of water fowl are to be found, in the lakes, rivers, and harbours, which have never been described or classed.

In

In Vermont we have most of the birds, which are known in the inland parts, and taken of the northern climates. Some of them seem to be fitted by nature, to endure all the severity of our climate, and are to be seen in the coldest weather of our winters. Of this kind, are

The Crow. *Corvus cornix.*
Hawk, forked tail. *Falco furcatus.*
Owl. *Strix asio.*
Blue Jay. *Corvus cristatus.*
Snowbird, *Emberiza hyemalis.*
Partridge. *Perdix sylvestris.*
Woodpecker, red headed. *Picus capite toto rubro.*

There are several other birds, the robbin, blackbird, lark, snipe, bluebird, &c. which are seen as soon as the snow goes off, in the spring. They are not seen in the winter, but they are found late in the fall. From their late and early appearance, it is not improbable that some of them may tarry here through the winter.

Those which are esteemed *birds of passage*, with the usual times of their appearance, and departure, are

	Time of Appearance.	Departure.
The Snowbird. *Emberiza hyemalis.*	Nov. 20.	April 1.
Wild Goose. *Anas canadensis.*	March 15.	Nov. 20.
Wild Pigeon. *Columba migratoria.*	March 20.	Oct. 10.
House Swallow. *Hirundo cauda furcinata.*	Ap. 10.	Sept. 10.
Barn Swallow. *Hirundo rustica.*		
Ground Swallow. *Hirundo riparia.*		
Black Martin. *Hirundo purpurea.*		

The SNOWBIRD is a beautiful, active, sprightly, little animal. They are generally of a grey colour, and less than a sparrow. Flocks of them appear, as soon as the snow begins to fall in any considerable quantity; and generally a day or two before. They perch on the spires of vegetables above the snow, on the

the bushes, and trees; and collect on the spots of bare ground. In the most severe storms of snow, these birds appear to be the most active and lively. They feed on the seeds of vegetables, and are extremely fat, and delicious, but they are too small to be molested on this account. They seem to be of different colours, black, white, and grey; but they all disappear as soon as the snow goes off.

The WILD GOOSE, from the beginning of April, to the middle of November, resides chiefly in the more northern, and northeasterly parts of America. In those parts they produce their young, and are to be found in the rivers and harbours, in immense numbers. In November they come in large flocks from the north, and northeast, and pass off to the southwest. In March and April, they return from the southwest in a contrary direction, and go back to their summer habitation. These flocks frequently consist of fifty or sixty. They fly at a great height, and appear to observe great regularity in their passage. They sometimes follow one another in a straight line, but are more generally drawn up in the form of a wedge; and appear to be led by one of the strongest, and most active. While they keep together, they seem to understand their course perfectly well; but if by any means their order is broken, and the flock dispersed, several of them wander out of their course, appear to be perplexed, descend to the earth, and are often killed or taken. When tamed, they will join with a flock of domestic geese; but at the usual times of migration, are very apt to join any flock, which approaches near to them, in their passage.

In the WILD PIGEON, the multiplying power of nature acts with great force and vigour. The male and female always pair: They sit alternately upon the eggs, and generally hatch but two at a time; but this is repeated several times in a season.—The

accounts which are given of the number of pigeons in the uncultivated parts of the country, will appear almoſt incredible to thoſe who have never ſeen their neſts. The ſurveyor, *Richard Hazen*, who ran the line which divides Maſſachuſetts from Vermont, in 1741, gave this account of the appearances, which he met with to the weſtward of Connecticut river. "For three miles together the pigeons' neſts were ſo thick, that five hundred might have been told on the beech trees at one time; and could they have been counted on the hemlocks, as well, I doubt not but five thouſand at one turn round."* The remarks of the firſt ſettlers of Vermont, fully confirm this account. The following relation was given me, by one of the earlieſt ſettlers at Clarendon: "The number of pigeons was immenſe. Twenty five neſts were frequently to be found on one beech tree. The earth was covered with theſe trees, and with hemlocks, thus loaded with the neſts of pigeons. For an hundred acres together, the ground was covered with their dung, to the depth of two inches. Their noiſe in the evening was extremely troubleſome, and ſo great that the traveller could not get any ſleep, where their neſts were thick. About an hour after ſunriſe, they roſe in ſuch numbers as to darken the air. When the young pigeons were grown to a conſiderable bigneſs, before they could readily fly, it was common for the ſettlers to cut down the trees, and gather a horſe load in a few minutes." The ſettlement of the country has ſince ſet bounds to this luxuriancy of animal life; diminiſhed the number of theſe birds, and drove them further to the northward.

We have four ſpecies of SWALLOWS in this part of America. 1. The houſe ſwallow. This may be readily diſtinguiſhed from the reſt, by the greater forkedneſs

* Belknap's Hiſtory of Newhampſhire, Vol. III. p. 171

forkedness of its tail. It has also a red spot upon its forehead; and under its chin. This species build their nests in chimneys. Their nests are made of small sticks, cemented together, with a kind of gum, and mud; they are covered or arched over the tops, and the aperture is on one side. These swallows appear the earliest of any, in the spring. And a few days before their departure in the fall, they associate on the tops of buildings, dry trees, and bushes, as if about to depart in companies. 2. The barn swallow. The size of this, is rather less than that of the other; and the tail is not forked so much. This swallow builds his nest in barns and out houses; and they are formed of grass, straw, and feathers. Their eggs are speckled, of a dark brown and white. It is called the barn swallow from the place in which it generally builds its nest. 3. The ground swallow. This is the smallest of the whole species. These swallows form a hole in sandy banks, and on the sides of rivers, of eighteen or twenty four inches in length. Their nests are made at the extremity of these holes, of straw and feathers, laid together in a loose and careless manner. Their eggs are perfectly white. The holes in which they are laid, are designed only for their nests: None of the swallows ever remain in them, during the winter. 4. The black martin. This is the largest of all our swallows. They build their nests under the eaves of houses, in the secret or retired places of out houses, and old buildings. Their nests are made of straw and feathers. They arrive the latest, and disappear the soonest of any of the swallows, which visit us.

The usual times of the appearance and disappearance of these birds, serve to mark the temperature of the climate, with as much precision, as any of the phenomena of nature. But they do not seem to be properly birds of passage. At *Danby* in this state, the inhabitants report, that some of them were taken out

out of a pond in that town, ſome years ago. A man was employed in the winter, to procure the roots of the pond lily, for medicinal purpoſes. Among the mud and roots which he threw out, ſeveral ſwallows were found incloſed in the mud; alive, but in a torpid ſtate. The account is not doubted among the inhabitants; but I have not the teſtimony of any perſons who ſaw theſe ſwallows.—It has been doubted by ſome able naturaliſts, whether it is poſſible for the ſwallow to live in ſuch a ſituation. I ſaw an inſtance, which puts the poſſibility of the fact beyond all room for doubt. About the year 1760, two men were digging in the ſalt marſh at Cambridge, in Maſſachuſetts: On the bank of Charle's river, about two feet below the ſurface of the ground, they dug up a ſwallow, wholly ſurrounded and covered with mud. The ſwallow was in a torpid ſtate, but being held in their hands, it revived in about half an hour. The place where this ſwallow was dug up, was every day covered with the ſalt water; which at every high tide, was four or five feet deep. The time when this ſwallow was found, was the latter part of the month of February; but the men aſſured me, they had never found any other ſwallows in ſuch a ſituation. The ſpecies called the houſe or chimney ſwallow, has been found during the winter, in hollow trees. At *Middlebury* in this ſtate, there was a large hollow elm, called by the people in the vicinity the ſwallow tree. From a man who, for ſeveral years, lived within twenty rods of it, I procured this information: He always thought the ſwallows tarried in the tree through the winter, and avoided cutting it down, on that account. About the firſt of May, the ſwallows came out of it, in large numbers, about the middle of the day; and ſoon returned. As the weather grew warmer, they came out in the morning with a loud noiſe, or roar, and were ſoon diſperſed: About half an hour before ſun down, they returned in millions,

ions, circulating two or three times round the tree, and then descending like a stream, into a hole about sixty feet from the ground. It was customary for persons in the vicinity, to visit this tree, to observe the motions of these birds: And when any persons disturbed their operations, by striking violently against the tree, with their axes, the swallows would rush out in millions, and with a great noise. In November, 1791, the top of this tree, was blown down, twenty feet below where the swallows entered. There has been no appearance of the swallows since. Upon cutting down the remainder, an immense quantity of excrements, quills, and feathers were found; but no appearance or relicks of any nests.

Another of these swallow trees, was at *Bridport*. The man who lived the nearest to it, gave this account: The swallows were first observed to come out of the tree, in the spring; about the time, that the leaves first began to appear on the trees. From that season, they came out in the morning, about half an hour after sunrise: They rushed out like a stream, as big as the hole in the tree would admit, and ascended in a perpendicular line, until they were above the height of the adjacent trees; then assumed a circular motion, performing their revolutions two or three times, but always in a larger circle, and then dispersed in every direction. A little before sundown, they returned in immense numbers, forming several circular motions, and then descended like a stream into the hole, from whence they came out in the morning. About the middle of September, they were seen entering the tree, for the last time. These birds were all of the species called the house or chimney swallow.—The tree was a large hollow elm, the hole at which they entered was about forty feet above the ground, and about nine inches diameter. The swallows made their first appearance in the spring, and their last appear-

ance

ance in the fall, in the vicinity of this tree; and the neighbouring inhabitants had no doubt, but that the swallows continued in it during the winter. A few years ago, a hole was cut at the bottom of the tree: From that time, the swallows have been gradually forsaking the tree, and have now almost deserted it. Neither of these accounts are attended with the highest degree of evidence, which the subject may admit of. But I am led to believe from them, that the house swallow in this part of America, generally resides during the winter in the hollow of trees; and that the ground swallows find security in the mud, at the bottom of lakes, rivers, and ponds.

Of the *Singing Birds*, the following are the most distinguished, either by the variety of their notes, or by the melody of their sound:

The Robin. *Turdus migratorius.*
Skylark. *Alauda alpestris.*
Thrush. *Turdus rufus.*
Thrasher, or Mock Bird. *Turdus polyglottes.*
Bobinçoln. *Emberiza oryzivora.*
Yellowbird. *Fringilla aurea.*
Bluebird. *Motacilla cærulea.*
Wren. *Motacilla regulus.*
Red winged Blackbird. *Turdus niger alis superne rubentibus.*
Catbird. *Muscicapa vertice nigra.*
Golden Robin, or Goldfinch. *Oriolus aureus.*
Springbird. *Fringilla.*
Hangbird. *Oriolus ictterus.*

The only natural music, is that of birds. In the uncultivated state, and parts of the country, this delightful sound is not to be heard. Either disgusted with so gloomy a scene, or disliking the food in the uncultivated lands, the musical birds do not deign to dwell in such places; or to put forth their melody to the rocks, and to the trees. But no sooner has man discharged his duty, cut down the trees, and opened

the

the fields to the enlivening influence of the air and the sun, than the birds of harmony repair to the spot, and give it new charms by the animating accents of their music. From break of day until about nine o'clock, the lovely harmony is heard from every quarter. About that time of day, the music ceases. The musicians retire to other employments; and there is no further concert, until next morning. This is one of the most delightful scenes which nature affords: But like most of our delicate pleasures, it is not to be enjoyed, but in the cultivated state.

A great variety of birds generally resort to the ponds, rivers, and lakes, which, in the season, are commonly distinguished by the name of *Water Fowl*. Among these aquatic birds, the most common are

The Goose, three species. *Anser canadensis.*
Duck, eight or ten. *Anas.*
Teal, two. *Anas.*
Heron, two. *Ardea.*
Gull, two. *Larus.*
Shelldrake, three. *Mergus.*
Crane. *Ardea canadensis.*
Stork. *Ardea ciconia.*
Loon. *Colymbus lumme.*
Waterhen. *Alca arctica.*

There are many other birds, which do not fall under either of the above descriptions. Of this kind, the following are the most common and numerous.

The Eagle, two species. *Falco.*
Hawk, four. *Falco.*
Owl, three. *Strix.*
Woodpecker, seven or eight. *Picus.*
Kingbird. *Lanius tyrannus.*
Crow Blackbird. *Gracula quiscula.*
Cuckow. *Cuculus americanus.*
Kingfisher. *Alcedo alcyon.*
Woodcock. *Scolopax rustica.*

Woodsnipe.

Woodpicker. *Scolopax fulva.*
Quail. *Perdix minor.*
Cuckow. *Cuculus* ——
Hawk, four. *Charadrius.*
Wild Turkey. *Meleagris gallopavo.*
Turtle Dove. *Columba carolinensis.*
Whip poor Will. *Caprimulgus* ——, L.
Nighthawk. *Caprimulgus americanus.*
Lodgebird. *Motacilla ampelis.*
Greybill. *Lanius carolinensis.*
Hummingbird. *Trochilus colubris.*

In addition to these, there is a mamillary biped, the Bat (*vespertilio murinus*;) And a great variety and number of small birds, which have never been enumerated, described, or classed. We meet with them every day in the fields, but they are not distinguished by any proper names.

It is worthy of remark that in the birds of America, nature proceeds from her most minute, and curious, to the most sublime and magnificent productions. The *Hummingbird* is the least of all birds. The *Condor*, a bird of Southamerica, in bulk, strength, and courage, is the greatest. Both of these are peculiar to America. The gradation from the least to the greatest, through all the intermediate steps and degrees, is nicely and beautifully filled up, with an infinite variety of others.

FISHES.

OF the great variety of fish, which nature has produced in the waters of America, but a small part are found in the internal parts of the continent. The largest collection of waters which we have in Vermont, are the lakes Champlain, Memphremagog, Connecticut river, with the ponds and streams connected with them. In these waters we have

The Sturgeon. *Acipenser furio.*

Salmon.

Salmon. *Salmo.*
Salmon Trout. *Salmo falar.*
Baſs. *Perca oculata.*
Pickerel, or Pike. *Eſox lucius.*
Shad. *Clupea alioſa.*
Alewife. *Clupea.*
Eel. *Muræna anguilla.*
Trout. *Trutta.*
Red Perch. *Perca fluviatalis.*
White Perch. *Perca lucioperca.*
Pout. *Silurus felis.*
Shiner. *Perca nobilis.*
Chub. *Perca philadelphica.*
Bream. *Perca chryſoptera.*
Bret. *Clupea minima.*
Menow.
Sucker.
Dace.

Migration is not peculiar to the birds: Several kinds of fiſhes, have as regular periods of approach, and departure, as the birds of paſſage. This is the caſe with the ſalmon. In the ſpring, about the 25th of April, theſe fiſh begin to paſs up Connecticut river, and proceed to the higheſt branches. About the ſame time, or a little later, they are found in Lake Champlain, and the large ſtreams which fall into it. So ſtrong is this inſtinct of migration in the the ſalmon, that in paſſing up the rivers, they force their paſſage over cataracts of ſeveral feet in height, and in oppoſition to the moſt rapid currents. They are ſometimes ſeen to make ſix or ſeven attempts, before they can ſucceed to aſcend the falls. When they are thus going up in the ſpring, they are round and fat, of an excellent taſte, and flavour. From the firſt week in May, to the ſecond week in June, they are taken in great numbers. When they arrive at the upper parts of the rivers, they depoſit their ſpawn, and remain there during the ſummer

ſeaſon; but become very lean, and flaccid. Towards the latter end of September, they return to the ocean; but ſo much emaciated, that they are not taken, or uſed for food. Some of theſe ſalmon in the ſpring, will weigh thirty five or forty pounds. They migrate only to cold waters. None of them are ever found to the ſouth, or weſt, of Connecticut river. Thoſe that go further to the northward, and paſs up the river St. Lawrence, are generally more large and rich, than thoſe which come from the ſouthward.

The *Salmon Trout*, in its form, dimenſions, and appearance, very much reſembles the ſalmon; but the meat is of a finer grain, and of a more delicate taſte, and flavour. This trout is found in Lake Champlain, and in the rivers and ponds, which are connected with it. Theſe fiſh are taken with the hook and line, like the cod and haddock. Trouts from ſeven to ten pounds, are common. In a pond at Leiceſter in this ſtate, ſome have been taken which weighed twenty five pounds: Others much larger have been ſeen leaping out of the water, which the fiſherman ſuppoſed would weigh from thirty five to forty pounds.

The *Pike* or *Pickerel* abounds much in Lake Champlain. It is there called by the name of Muſchilongoe, and grows to a great ſize. They are eaſily taken with a ſpear, and ſome of them have weighed forty pounds, and were ſix feet in length.

Of the ſmall fiſh, which reſide in the brooks and ſmall ſtreams, the moſt numerous and uſeful, are the trout, perch, and ſucker. The trout, in its colour, form, and taſte, reſembles the ſalmon trout, but is of much ſmaller dimenſions. The largeſt of them, will not weigh more than two pounds and an half, or three pounds. This fiſh is found in all the ſtreams, which have their origin in the mountains; and generally very near their ſources, in the high lands.

The

The perch and the ſucker are alſo very numerous, and uſeful, and of nearly the ſame dimenſions. The moſt uncommon inſtance, which I have ever ſeen, of the multiplying power of nature, was in the increaſe of theſe fiſh. At Tinmouth, is a brook about twenty or thirty feet wide, and two or three deep; in which the trout and ſucker were to be found of the common ſize, and number. A dam was built acroſs this ſtream, for the purpoſe of ſupplying water for a ſawmill. This dam formed a pond, which covered by eſtimation, about a thouſand acres, where the trees were thick, and the ſoil had never been cultivated. In two or three years, the fiſh were multiplied to an incredible number. They were become ſo numerous, that at the upper end of the pond, where the brook fell into it, in the ſpring the fiſh are ſeen running one over another; embaraſſed with their own numbers; and unable to eſcape from any attempt that is made to take them. They are taken by the hands, at pleaſure; and the ſwine catch them without difficulty. With a net, the fiſhermen often take a buſhel at a draught, and repeat their labour with the ſame ſucceſs. Carts are loaded with them, in as ſhort a time, as the people could gather them up, when thrown upon the banks; and it is cuſtomary to ſell them in the fiſhing ſeaſon, for a ſhilling by the buſhel. While they have thus increaſed in numbers, they are become more than double to their former ſize.—This extreme increaſe does not ſeem to be derived from any other cauſe, than that of collecting the waters in ſuch a quantity, as to form the pond; and thus increaſe the means of ſubſiſtence, by carrying the water over a large tract of rich, and uncultivated land. Events of a ſimilar nature generally take place, when an artificial pond is made in any part of the country, not

before

before cultivated; and probably from the ſame cauſe.*

In the production of fiſh, nature ſeems to have been extremely prolific, in every part of America. Their ſpecies, their multiplying power, and the age at which they become prolific, are beyond our knowledge, and computation. The brooks, rivers, ponds, and lakes, are every where ſtored with them. The ſea coaſts are one continued range of fiſhing banks, covered with cod, haddock, and other animals of the ocean. The *whale* is generally eſteemed the greateſt animal, which nature has produced in the water: In the ſeas of America, this is to be found in its greateſt perfection of magnitude and numbers.

Foſſil ſhells are frequently found at ſome diſtance from the banks of our lakes, rivers, brooks, and meadows. Some have been found on the ſides, or rather in the gullies of the mountains. Such productions require a collection of water for their formation. Naturaliſts have propoſed many theories and ſpeculations, to account for the collection of water in ſuch places, where there are now no appearances of the kind.

In their deſcent from the mountains, the brooks and rivers muſt every where have formed themſelves into lakes, ponds, and ſmall collections of water. And

* The number of fiſh in the rivers of Southamerica, is fully equal to any thing that takes place, in the northern parts of the continent. "In the Maragnon," ſays P. Acugna, "fiſh are ſo plentiful, that, without any art, they may take them with their hands."

"In the Orinoco," ſays P. Gumilla, "beſides an infinite variety of other fiſh, tortoiſes or turtle abound in ſuch numbers, that I cannot find words to expreſs it. I doubt not but that ſuch as read my account will accuſe me of exaggeration; But I can affirm, that it is as difficult to count them, as to count the ſands on the bank of that river." Hiſt. del. Orenoque, ii, c. 22. p. 59. M. de la Condamine confirms their accounts.

And it was not until after long periods of time, that they could form for themselves channels of such depth, as to discharge the waters which had been thus collected. Some of these ponds were formed on the sides of the mountains, and others overflowed what are now called the meadows; and many of their ancient phenomena yet remain. The waters have long since formed the channels by which they are now discharged into the ocean. In such places, fossil shells are yet found. They are the productions of former times, when those places were covered by the waters descending from the mountains, then collected into quantities for want of natural channels, now drawn off by the depth of the channels which the waters have formed, and constantly rendered more and more deep.

REPTILES AND INSECTS.

THAT class of animals, which are distinguished by the names of reptiles, and insects, are numerous in every part of America. They abound the most, and are of the largest size, in the hottest parts of the continent. In a climate so cold as that of Vermont, they are comparatively of but a few species, and small in their size; but they exist in great numbers. The following are our

AMPHIBIOUS REPTILES.

The Turtle, two species. *Testudo.*
Toad. *Rana.*
Frog, five. *Rana.*
Lizard. *Lacerta punctata.*
Swift. *Lacerta fusciata.*

There are several accounts in natural history, of toads being found in the hearts of trees, and in solid rocks; wholly inclosed, and shut up from the air,

air, and all appearance of food; and being taken alive, out of such situations. In the Memoirs of the Academy of Sciences, there is an account that in the year 1731, a toad was found in the heart of an old oak near Nantz, without any visible entrance to its habitation. From the size of the tree, it was concluded, that the toad must have been confined in that situation, at least eighty or an hundred years.* We have several instances in Vermont, equally extraordinary. At Windsor, a town joining to Connecticut river, in September, 1790, a living frog was dug up at the depth of nine feet, from the surface of the earth. *Stephen Jacobs*, Esq; from whom I have this account, informs me, that the place where this frog was found, was about half a mile from the river, on the intervale lands, which are annually overflowed by its waters. At Castleton, in the year 1779, the inhabitants were engaged in building a fort, near the centre of the town. Digging into the earth five or six feet below the surface, they found many frogs, apparently inactive, and supposed to be dead. Being exposed to the air, animation soon appeared, and they were found to be alive, and healthy. I have this account from General *Clarke*, and a Mr. *Moulton*, who were present when these frogs were dug up. Upon viewing the spot, it did not appear to me, that it had ever been overflowed with water, but it abounded with springs. A more remarkable instance was at Burlington, upon Onion river. In the year 1788, *Samuel Lane*, Esq; was digging a well near his house. At the depth of twenty five or thirty feet, from the surface of the earth, the labourers threw out with their shovels, something which they suspected to be groundnuts, or stones covered with earth. Upon examining these appearances, they were found to be frogs; to which,

* Smellie's Philosophy of Natural History, p. 122.

which, the earth every where adhered. The examination was then made of the earth, in the well, where they were digging. A large number of frogs were found covered with the earth, and so numerous, that several of them were cut in pieces by the spades of the workmen. Being exposed to the air, they soon became active; but unable to endure the direct rays of the sun, the most of them perished. This account is from Mr. *Lane*, and Mr. *Lawrence* one of the workmen, who were both present when the frogs were dug up. From the depth of earth, with which these frogs were covered, it cannot be doubted but that they must have been covered over in the earth, for many ages, or rather centuries. The appearances denote that the place from whence these frogs were taken, was once the bottom of a channel or lake, formed by the waters of Onion river. In digging the same well, at the depth of forty one feet and an half from the surface, the workmen found the body of a tree eighteen or twenty inches in diameter; partly rotten, but the biggest part sound. The probability is, that both the tree, and the frogs were once at the bottom of the channel of a river, or lake; that the waters of Onion river, constantly bringing down large quantities of earth, gradually raised the bottom: That by the constant increase of earth and water, the water was forced over its bounds, and formed for itself a new channel or passage, in its descent into Lake Champlain.—How vigorous and permanent must the principle of life be, in this animal! Frogs placed in a situation, in which they were perpetually supplied with moisture, and all waste and perspiration from the body prevented, preserve the powers of life from age to age! Centuries must have passed since they began to live, in such a situation; and had that situation continued, nothing appears, but that they would have lived for many centuries yet to come!

SERPENTS.

SERPENTS.

The Rattle Snake. *Crotalus horridus.*
Black Snake. *Coluber constrictor.*
Green Snake. *Coluber guttatus.*
Striped Snake. *Angui. vitt.*
Water Adder. *Coluber fasciatus.*

These are all the species of this kind of animals, of which I have any account; and these are but seldom to be met with in Vermont.

There is a curious phenomenon respecting two of these species, which seems to deserve further inquiries. The farmers, and other persons who frequently meet with the rattle snake, and with the black snake, seem universally to believe that each of these animals, have a power of *fascination*; or as it is commonly expressed, of *charming* birds, and other small animals. The account which is generally given, is this: The snake lies stretched out his full length, in some open place; his head raised eight or ten inches from the ground; his colours glow with their greatest brightness; his eyes play with an uncommon brilliancy, and fire; and are fixedly fixed on the enchanted animal.—During this scene, the bird appears to be in the greatest distress; is constantly putting forth the most mournful accents; at the same time, is performing a number of irregular circular motions; and at the end of each, approaches nearer to the snake: This scene continues, and is incessantly repeated, until the bird, without any power to escape, comes within the reach of the voracious jaws of the serpent, when it is instantly seized: But if the snake is attacked, or so disturbed during the operation, that his attention is turned another way, the charm is broken; and the bird recovering his liberty, immediately flies off.—I have never myself seen any thing like this fascinating

ing fcene; but I have had accounts exactly fimilar from more than a dozen perfons, whofe veracity cannot, in the fmalleft degree, call in queftion. There is room, however, for miftake in fuch kinds of obfervations; and in moft of them, the fnake was difturbed, before the fcene was finifhed. That there is fomething curious in thefe appearances, cannot be doubted. But whether thefe fnakes have fuch powers, or by what caufes fuch events are produced, feems to require more accurate obfervations, and a more philofophical inveftigation.

INSECTS.

The infects are too minute, and numerous, to be particularly deferibed. The moft common are the beetle, grafshopper, cricket, butterfly, firefly, blackfly, moth, flea, ant, mufquito, fpider, hornet, wafp, humble bee, honey bee, various kinds of bugs, and feveral fpecies of worms. Of thefe the mufquete is the moft troublefome. The weafel, the Heffian fly, and the locuft, are not known in this part of the continent.

Of the bee, there is a fpecies which is generally called with us, the *humble bee*. This is indigenous to the country, and much larger than the common bee. It forms a neft upon the ground; and produces a fpecies of honey, in tranfparency, beauty, and fweetnefs, fully equal to that of the honey bee; but much lefs in quantity. Whether the honey bee is a native of the country, feems to be viewed by fome as uncertain. I do not find much reafon to doubt, but that it was in America, before the Europeans made their firft fettlements in the country. From the pictures and tribute rolls of the Mexicans, it appears that the honey bee was known, and that honey was one part of the annual tribute which was paid to their emperors before the arrival of the Spaniards.

iards. *Clavigero* in his history of Mexico, confirms these accounts, and mentions six kinds of bees which make honey, two of which have stings, and one in all respects agrees with the honey bee of Europe. A species of the honey bee, but without stings, was found in Chiapa, and Yucatan. The same according to Margrave, was found in Brasil. In 1540, among the provisions of the natives of Florida, "a pot full of honie of bees," was found by Soto.—From these accounts, it is not to be doubted, but that the honey bee was indigenous, and had spread over the empire of Mexico. To the east, it had advanced as far as Florida: And to the south, to Yucatan, and the country of Brasil. To an immense country then, the honey bee was indigenous, and common.—There was no cause in the nature of the animal, or of the climate, to prevent their spreading to the northward. They live in the hollow trees in the woods of Vermont, from year to year, and are always found, of their full dimensions, vigorous, and plentifully supplied with honey; and they bear the cold of our winters, much better in the hollow of a large tree, than in any of our artificial bee hives. They live and abound in Russia, where the climate is much more severe, than it is in this part of America: They would therefore naturally extend, and spread along the country, where they could find the means of subsistence, and a climate not unsuited to their support. It has always been found far beyond the English settlements. From our earliest acquaintance with Lake Champlain, it was to be found in the open lands, along those shores, at the distance of an hundred miles from the English or French settlements; and long before those settlements had begun to attend to the cultivation of this animal: And from the first settlement of Newengland, hunting for their nests has been a favourite and profitable amusement.—But of the chief

chief food of the bee is from the blossoms and flowers of plants, it does not multiply so fast in the uncultivated parts of the country, as where the improvements of agriculture and gardening, are constantly producing a greater variety, and number of vegetables.

To the tribes of reptiles and insects, we have affixed the idea of something, unpleasant, diminutive, or odious. The designs, the wisdom, and the power of the Creator, are not to be estimated by such feelings, fears, and prejudices. The reptile, the insect, the fish, the bird, and the quadruped, one as much as the other, denote wisdom, power, and design, in the author of nature: And they are alike evidences, and instances, of the power of animated nature, in the different parts of the earth. We may therefore as justly and clearly deduce the energy and force of animated nature in any country, from the number and magnitude of the insects, as from the species and dimensions of any other animals. The European philosophers have dwelt with wonder and astonishment, on the numbers and size of these animals in America. The facts are justly stated, in several of their accounts, and they ought to have concluded from them, that the soil was uncommonly rich, fertile, and luxuriant. Anxious to find marks of degradation in America, they have almost universally advanced a contrary conclusion: That this prolific power of nature, denoted an uncommon corruption, and degradation of climate. No conclusion was ever farther from the truth, or more remote from probability. It is only a rich soil, and a temperate climate, which can produce what they call a rank vegetation, or numerous reptiles and insects, of the largest size.

From this imperfect view of our quadrupeds, birds, fishes, and insects, instead of finding [illegible] are but weak and feeble in America, as M. de Buffon has

has supposed,* her animals appear to be marked with an energy, and a magnitude, superiour to what is found in Europe; and equalled only, by the magnificent and vigorous productions of Asia.

* "Le nature vivante est beaucoup moins agissante, beaucoup moins forte." Hist. Nat. xviii. 122. edit. Paris, 1764.

CHAP. VII.

ORIGINAL INHABITANTS.—*The Employments, Civil Government, System of War, Education, Manners, and Customs of the Indians; the Advantages, and Disadvantages of the Savage State.*

IN the formation of the mountains, rivers, vegetables, and animals, the powers of nature appear to rise in a steady and beautiful progress. This progress seems to be completed in the production of a rational, moral, and accountable animal. This animal is *Man*: And he evidently appears in every part of the globe, to be at the head of all the productions of nature: But the men of different countries and nations, appear to be very different from one another.

The original inhabitants of this country were the *Indians*: These were the only species or kind of men, that had spread over America. It will be more difficult to give a just account of *the Man of America*, than to describe its vegetables, and animals. The latter are subject to stated, and invariable laws; they pass through but few changes and variations, and are always to be found in that state, in which nature placed them. Man is subject to a great variety of alteration, and improvement. In his rudest and most simple state, he appears but little superiour to the brute: in his highest improvement and polish of manners, he appears at an infinite remove from the bare

bare animal; and in all the ſtages of his progreſs from the one ſtate to the other, he paſſes through an endleſs variety of ſituations and circumſtances, which are conſtantly giving a new appearance to his capacity, powers, paſſions, manners, and purſuits. The natural hiſtory of man is therefore the moſt difficult, but it is alſo the moſt uſeful and important ſubject we can contemplate. In examining the hiſtory of the Indian of America, we ſhall find man in the moſt ſimple mode, and unimproved ſtate, in which he has ever been placed, or viewed.*

APPEARANCE AND COUNTENANCE.—The appearance of the Indians was different from any, under which man had ever been viewed before. The colour of their ſkin is of a reddiſh brown, nearly reſembling the colour of copper, but rather darker. Their faces are broad, the noſe appears flattiſh, their eyes black, ſmall, and very active. The hair of their heads is always black, coarſe, long, and perfectly ſtraight; and they generally appear without any beard. The men are taller than the Europeans, but rarely corpulent, and their bodies appear to be firm, ſtrong, and well proportioned. Their features are regular and well adjuſted, but their countenance diſcovers ſomething wild, fierce, and ſullen. None of them are ſeen crooked, mutilated, or deformed; defective in any of their ſenſes, or deficient in any of their bodily organs; but ſtraight, well built, and robuſt. In the appearance, aſpect, and countenance of the Indians, there is an uncommon uniformity and reſemblance. It is the ſame in all climates, and in all the tribes of America. It does not vary with

* The following account relates chiefly to the Indians in the northern parts of America. I have received much aſſiſtance from the writings of Dr. Robertſon, and other authors. But the authorities on which the accounts are founded, are chiefly the relations of thoſe perſons who have lived among the Indians, and been intimately acquainted with them.

with heat, cold, situation, employment, or other circumstances; but the Indian countenance has the same combination of features, and peculiarity of aspect, in every part of America.

EMPLOYMENT, AND METHOD OF PROCURING SUBSISTENCE.—The food proper for man, is to be found in every part of the earth. But the means and the method of procuring it, are different among different nations, and in different stages of society.—The savages of Northamerica had discovered the properties and effects of those seeds, berries, and roots, which the earth spontaneously produces; and one part of their food was derived from this source. Fishing was another method which they used to procure subsistence. The great plenty and variety of fish, with which the rivers of America abounded, rendered this kind of provision easy to be procured, and of great use. The Indian had acquired much skill and address, in his method of catching the fish; and he was accustomed to dry, and smoke them, in order to preserve them. The falls of rivers were the places, to which they most resorted for this purpose: And most of these falls were the places, where some of their tribes or small companies resided: And they were generally distinguished by some particular Indian name.—A more general and effectual method of support, was hunting. The fruits which the earth spontaneously produced, were but few, and of short continuance. A few tribes only could be accommodated, by the vicinity and convenience of a river: But game was every where to be found. The bear, the deer, the beaver, the fox, and other animals, were in great numbers, and in every part of the northern continent. From these, the Indian derived his most sure, and plentiful support. But this method of procuring food, required great efforts of invention, and activity. The strength, the fierceness, and the swiftness of the wild animals, the feebleness

bleneſs of the weapons, the bow, arrow, and club, with which the ſavage attacked them, joined to make the buſineſs of the hunter laborious and difficult, and called forth all the active powers of the ſavage. And here, he appeared to the greateſt advantage; fertile in invention, ſagacious in diſtinguiſhing and obſerving, nice and accurate in tracing the animal, indefatigable, and perſevering in the purſuit. An employment which thus gave exertion to all the invention, courage, force, and vigor of the man, naturally became the moſt honourable employment: And the moſt dexterous hunter became the moſt diſtinguiſhed ſavage of the tribe.—To theſe methods of procuring food, were added ſome feeble attempts in agriculture. Indian corn, beans, pompions, and ſquaſhes, were the only plants they cultivated. The culture of theſe was wholly in the hands of the women. Without the uſe and knowledge of any of the domeſtic animals, altogether deſtitute of the proper inſtruments of huſbandry, their efforts were weak and languid; and the ſupplies they derived this way, were but ſmall.

Theſe were all the methods of procuring food, with which the Indians were acquainted. They afforded them but a ſcanty and precarious ſupport. When the game was plenty, and the hunter ſucceſsful, they had an abundance of food. When the ſeaſon of the year was unfavourable, and their ſucceſs but ſmall, they were reduced to ſcarcity and want. Their ſufferings this way, were ſometimes extremely ſevere. And there was no year, in which they were not ſubject to theſe extremes, of great plenty, and ſevere famine.

The appetite of the Indian conformed to this ſtate of things. In the ſeaſons of plenty, the ſavage indulged himſelf to great exceſs: In the time of famine, the Indian bore his hunger with aſtoniſhing patience, and firmneſs. So accuſtomed was he to this irregular

irregular manner of living, that every and certain means of subsistence, and the constitution and habits by which they will support, under the common circumstances of human life, the fatigues and hardships of the savage state, were derived.

Society.—Wherever any considerable number of the human race subsist, near each other, they will always establish some form of society. Mutual wants, designs, dependencies, interests, and benefits, operating with the appetite now had for society, will not fail to produce this effect. The situation and employments of the Indians, determined what the nature and extent of this society must be, among them. The chief source of subsistence among them, was hunting. Such a mode of living, large territory became necessary for the support of a small number of people. Like the grazing tribes of Tartary, they must be dispersed over a great extent of country, or they cannot procure food. In this stage of society, the extent of it is derived from its situation. Its territory must be large, the number of people will be small, and all tribes must be kept at such a distance as not to encroach upon the territory of the game. This was the state, in which the savages were found. Divided into a number of tribes, small in the number of people, large in the extent of territory, and generally unfriendly and hostile to each other.

Nature of their Civil Government.—From this state of society, arose a species and form of government peculiar to the Indians. The *views* and *object* of government among the savages, were not the property, security, or conduct of the individual; but the peace, and safety of the tribe. The idea of property is suggested by nature; and was clear, distinct and just, in the mind of the rudest Indian. The fish in the river, and the game in the forest,

were not the property of individuals, but belonged to the whole tribe. Nor had individuals any right to the soil, but that which was derived from the tribe. Every man's property was secured by his personal exertion, or other services rendered to the community. The spoils taken from the enemy, and all other acquisitions, were the property of the tribe. Their lands belonged to the tribe. No individual claimed a right in them, no private property existed in them. Their wars were carried on by the joint exertions of the whole tribe. Their hunting and fishing were conducted in the same manner. Every man had a right to repair in quest of subsistence to the most convenient place. When the husband had planted his corn, no one had a right to molest him in the possession and the enjoyment of it. When he had relinquished his possession, any other of the tribe had a right to take possession, and pursue the same employment that he had done. The fruits of their common labour, and industry, were always the property of the individual. The victory, the fruit of the whole, belonged to the tribe. The former was of so simple a nature, so well understood, and so uniformly agreed to, that few controversies could ever arise about it. Common custom and consent was sufficient to adjust and regulate every thing of this nature. The latter constituted all the property, the means of subsistence, and that on which the whole tribe depended for their existence. This was the great object and aim of their government, to protect and defend that on which the whole tribe subsisted. In such a state of society, the injuries that would be done to individuals would not be many in their number, or often of such a kind, as to endanger the existence or sovereignty of the tribe. The right of redressing them was therefore left in private hands. This has always been the case, in the infancy of society and government. If injuries were done, if blood was shed,

in

[illegible] belonged the [illegible] and finally if the [illegible] perfect in their [illegible] if the [illegible] interposed, [illegible] only by way of counsel and advice. The [illegible] of their jurisdiction might accept of their advice, [illegible] by the aggrieved, or they might reject it. If it was accepted, all was settled in a quiet and friendly manner. If rejected, nothing remained but [illegible] the aggressor, with a resolute and [illegible] or nothing less than [illegible] and death.

The first [illegible] of the Indian government, was the [illegible] that can be contrived, or imagined. There was no [illegible] nobility, lords, or heads of [illegible] among them. The whole tribe assembled together in their public councils. Destitute of writing, records, and history, to preserve the memory of their public [illegible] their most aged men became the depositories of what may be called traditionary information, tradition, and a knowledge of the [illegible] circumstances. It is by them that the debates [illegible] are chiefly carried on. Their councils are few, solemn, and deliberate. Every circumstance that they can foresee, is taken into consideration. The probable advantage and disadvantage of every measure, are examined and weighed, all the prospects of success and disappointment, are revolved in their breasts; and nothing is omitted, that can secure to their views or expectations. The whole business is a scene of consultation, and advice. And the advice has no other force or authority, than what is derived from its supposed wisdom, fitness, and propriety.

The [illegible] executive of the government, is placed wholly in the public [illegible] The chief has no authority to [illegible] counsels, or compel to his measures. He is [illegible] like the rest of the tribe. His [illegible] and furniture are the same as those of others. There is no appearance, or mark

of distinction? No deformity, or form of mutilation here either? No caught or tokens of dependency, or power. In every external circumstance they seem upon a level with the rest of mankind, and the only which gives weight and authority to either vice, is the public opinion of their superior wisdom and experience. Their laws [illegible] on this same foundation. There was no written law, statute, or rule of conduct. No public precedent, established courts, forms or modes of proceeding in the course and occasions of contention. Wise forms, therefore, did not much affect the tribe. Authority thus interposed in the concerns of individuals, it was not to compel, but only to counsel and advise them. The public opinion pointed out what was right, fit, and proper to be observed laws and rules of conduct. These rules of law derived from nature were seldom wrong, obscure, or inconsistent, but generally plain, clear, and useful. Their penalties and punishments were derived from the same source. Loss of character, and reputation, disgrace, exclusion from the tribe, and death, were the punishments to which offenders were exposed, according to the nature and aggravation of their crimes. These punishments were not described, and assigned to any particular crime by a written law; but they rested upon the public opinion of the tribe, and derived their force and power from it. An offender who had been greatly and deeply guilty, fled from the tribe, as the only way to safety, peace, and rest.

There was a *simplicity* and *propriety* in this government, or rather, it was fully adequate to its end and design, and to the situation and state of the people. A modern statesman would smile at the idea of Indian government. And because he could find no written constitution, or bill of rights, no mutual checks, and ballances, accountability and responsibility, pronounce it weak, foolish, and contemptible.

But

But

System

[illegible] and [illegible] disputes with [illegible] civil regulations of the [illegible] government, [illegible] qualified and prepared them for [illegible] knowledge that leads to this, an application [illegible] must be made to reason and [illegible] [illegible] ever had much clear conception of the [illegible] right and property, that [illegible] Indians. They [illegible] only understood that every [illegible] were guarded [illegible] property, that were [illegible] claimed the soil in their [illegible] This right was [illegible] complete, perfect, and [illegible] Such as entitled them to the full and [illegible] session, and to oppose by force and violence, all [illegible] encroachments upon the soil, or getting in any place [illegible] their territories. The [illegible] these principles, and ill defined [illegible] encroachments and injuries, were frequently taking place. Hence arose [illegible] nations, and posterity, which [illegible] fierceness of the savage temper, and [illegible] [illegible] animosities and [illegible] this state most of the Indian [illegible] [illegible] tered into a course of [illegible] neighbouring tribes. From this [illegible] [illegible] of their existence and perpetuation [illegible]

The manner in which the Indians [illegible] their wars is very different from that of civilized nations. To defend themselves against [illegible] enemy, they have no other fortification but a [illegible] kind of fortress, which they call a [illegible] in the shape of a square without bastions, [illegible] with pallisadoes. This is erected where [illegible] number of the tribe resides, and [illegible] their children, while the [illegible] of the tribe [illegible] remove. The weapons of the Indian [illegible] of hard wood, a bow and arrow. Thus armed, the

produced,

receives.

receives.

A stake is fixed firmly in the ground. At the distance of eight or ten feet, dry wood, leaves, and fagots, are placed in a circle round the stake; and

[illegible] expected to [illegible] their [illegible]
[illegible] came, [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible]

[illegible] to suffer and behave like men."
With [illegible] the [illegible]
the [illegible]
[illegible]
[illegible]
[

himself,

[illegible]

[illegible] mild rather

oration

oration of dress, was reserved for the man. The share that fell to the woman, was only that which remained, when her husband was completely decked. When he was about to join the council of his nation, or was going forth to war, he was most of all solicitous to appear in his richest ornaments and finest decorations.—A custom prevailed among the Indians, of rubbing and anointing their bodies with grease, oil, and different kinds of gums. These were often mixed with different colours, and formed a very durable paint, or kind of varnish. This may properly be estimated as a part of the Indian dress. And it was well adapted to defend the body, against the extreme moisture and cold of the forest and lake, to protect them against the numerous tribes of insects to which they were exposed, and to check the profuse perspiration to which they were subject, at different times and places.

Idleness.—When engaged in hunting and war, the savage appears active, enterprising, and indefatigable. But when these favourite occupations are ended, an universal inactivity, and indolence, take place. The time of the Indian is spent in eating, sleeping, and sitting still. When he applies to any kind of labour, it is with little activity, and with great aversion. They will spend whole years in making a pipe, forming a canoe, or building a hut. The labours of agriculture, are wholly assigned to the women: Inactive and slothful, the man cannot be roused up to any kind of labour and fatigue. His time is of no value to him. Every thing but hunting and war, is esteemed below his dignity and attention. And of all employments, the lowest and most base, in his view, is digging, toiling, and labouring in the earth.—The most indolent, slothful, and contemptible, in civilized nations, have the same idea of honour and industry; that labour, especially agriculture, is beneath their dignity and honour.

DELICACY.—Cleanlineſs ſeems to be inſeparably connected with induſtry, and ſome degree of refinement. Deſtitute of both, the ſavages of Northamerica were ſunk into the loweſt eſtate of filth and dirtineſs. Nothing can exceed the naſtineſs that appears in their food, in their cabins, and in their garments. The veſſels in which they cook and eat their victuals are never waſhed. The dirt and graſſe in their huts, are never removed or ſwept away. Their garments are never changed or waſhed, until they wear to rags, and waſte away. No idea of cleanlineſs ſeems to have entered into their minds. This ſeems to be one of the cuſtoms, common to all ſavages: Inactive and lazy, they are all extremely filthy and dirty.

GAMING.—Gaming is an amuſement, to which indolence and want of employment naturally lead. Above the occupations of labour, and without a taſte for uſeful employments, many in civilized life ſeek a relief in gaming, for the pains of indolence; and for a method, to move and agitate a languid hand. Moved by the ſame cauſe and motive, the ſavage alſo falls to gaming, as the moſt favourite amuſement: Indolent and lifeleſs in all the exertions of labour, he becomes deeply engaged, impetuous, and noiſy in play. Every thing he poſſeſſes, is ſtaked at theſe diverſions; and he looſes his peace, his ſenſes, and all that he is worth. But theſe amuſements do not iſſue in contention and quarrels: Though carried on with a frantic eagerneſs, they are generally managed, and terminate in good humour and peace.

SONGS.—Averſe to all abſtruſe meditations, the Indians are much delighted with ſongs. To an European ear, their ſongs do not afford much entertainment; nor can ſuch diſcern harmony, melody, or any variety in their tunes. However this may be, the ſavages are always delighted with muſic. Their ſongs are of a grave and ſerious turn. They never

never relate to the concerns of gallantry and love, but to their most serious employments. They have songs for war, songs for victory, and songs for death. Each of them is designed to excite and call forth the sentiments, feelings, and passions, that such occasions require; and they have a great influence on their feelings, and actions. Amidst the severest sufferings of death, this is the resort of the savage; and when burning at the stake, the last consolation, is to sing the song of triumph and death.

DANCING.—Dancing has been one of the favourite amusements of all nations. In civilized societies this amusement is designed to promote a refinement of manners; and serves to excite the sensibility, and delicacy, which attaches and refines the sexes. Dancing is also the favourite employment of the savage, in every part of the globe. It calls forth his active powers, which, when unemployed, languish and decay for want of exercise. And in no employment, does he become more animated, vigorous, and eager.—Instead of being an amusement, an affair of gallantry, love, or refinement, dancing, among the savages, is a ceremony of great importance and seriousness. With this ceremony war is declared, an ambassador is received, and peace is concluded. It is by a dance, that every important transaction in public or private life, is celebrated.—Their dances are generally carried on by the men, and it is but seldom that the women are permitted to join in them. All the steps, figures, and motions of the dance, are expressive; and significant of the business or transaction, it is designed to denote. If war is to be proclaimed, the dance is expressive of the resentment and rage they bear to their enemies, and of the hostile manner, in which they mean to treat them. If a party are going forth against their enemies, the dance of war is to be performed. In this, the transactions of the whole campaign are to be expressed.

The

The warriors are represented as departing from their country, entering that of the enemy, surprising and conquering their foes, seizing prisoners, scalping the dead, and returning in triumph to the applause of their country. The performers appear to be agitated with all the natural passions and feelings, that take place in any of these scenes. The caution, the secrecy, the fierceness and cruelty of the warriors, is represented in a natural and animated manner. The whole is designed to excite those passions and feelings in the warrior, which it is designed to represent. And so quick, exact, and dreadful, is the representation, that the uninformed spectator is struck with horror, and looks to see the ground covered with mangled limbs, and slaughtered bodies.—If peace is made, this is also celebrated by a dance. The ambassadors and the warriors smoke in the same pipe, and join together in the same dance. The dance is adapted to signify that the hatchet is buried, that the blood is all washed away, and that the ghosts of the slain are appeased, and at rest; and that both nations are now to live, in all the friendship and familiarity of brotherhood. Thus instead of being barely an amusement and diversion, dancing among the Indians, is a very important and serious ceremony; designed to represent some important transaction, and to inspire those feelings and passions, which it should naturally produce.—Is it not remarkable, that among the savages in the first stage of society, dancing should be adapted to public and national purposes; that all the steps, figures, and motions of it, should be arts of imitation; and that among civilized nations, all the steps and motions should be without design, insignificant, and without any meaning at all?

BEARD.—The customs and methods of different nations, have been various and different, respecting their beards. Some have carefully preserved them

as

as the tokens of manhood, gravity, and regularity. Others have curled, twilled, and braided them, to give the appearance of elegance and beauty. Others have entirely cut them off, as an useless incumbrance; and to acquire greater softness, mildness, and amiableness of appearance. These different customs and fashions do not appear to be derived from any permanent cause, or instinct founded in nature; but to be matters of fancy, superstition, convenience, or vanity.—In this respect the Indians had a custom, different from those of other nations. It is their universal and constant practice to pluck them out by the roots; and to destroy, as far as possible, the appearance of any beard at all. Every man has an instrument made for this purpose: It consists of a wire, twisted round a stick, in such a manner as to draw the hair out of the flesh, and extract the root. The Indian carries such an instruments with him: And it makes a regular and constant part, of what he esteems his dress, to extract and destroy his beard. So fond are they of this custom, that whenever the Indian can obtain a looking-glass, his first business is to examine his face, and with this kind of tweezer, pluck out all the hairs he can discover. They generally recommend this custom to their captives, as what would increase their beauty, and destroy their hairy appearance, which the savage greatly dislikes.

Some philosophers have supposed, that the beardless countenance of the Indian, is derived not from custom, but from nature: That the Indian is without any beard, or hair on any part of his body, except the eyebrows and head: That this arises from a defect in the powers and vigour of nature; and is an evidence of weakness, impotency, and want of manhood.* The fact, and the conclusion, are both

* Buffon, Kaims, Robertson, &c.

miſtaken. Nature is the ſame in the Indian, as it is in the European: And on whatever part of the body it has aſſigned hair to the one, it has given it to the other. I am aſſured of this from thoſe who have ſkin, ſtripped, and buried their warriors: I have the ſame information from thoſe, who have been their captives; and who have ſeen all the members of an Indian family, dreſſed and undreſſed, and in all ſituations. The ſame is aſſerted by thoſe, who have lived among the civilized tribes, and been called to perform offices of humanity, to the Indians of each ſex. The beardleſs countenance of the Indian then, is not to be ranked among the curious and extraordinary phenomena of nature, but is to be placed among the cuſtoms peculiar to the Indian tribes.

DRUNKENNESS.—Drunkenneſs is one of thoſe vices, which prevail among a rude and uncultivated people. The ſavages of Northamerica, are univerſally addicted to it. Before they were acquainted with the Europeans, they had diſcovered a compoſition, or liquor, of an inebriating nature, made out of maize or Indian corn. But the difficulty of procuring a large quantity of this liquor, prevented any general intemperance, or exceſs. No ſooner had they taſted of the ſpirituous liquors brought by the Europeans, than they contracted a *new appetite*, which they were wholly unable to govern. The Europeans found it the moſt lucrative branch of the Indian trade to gratify this inclination. With an avidity of [illegible] altogether uncontroulable, the Indians ruſh into the ſnare. The firſt object of inquiry with them, was, whether the trader had brought any brandy or rum; and no conſiderations could reſtrain them in the uſe of it. The old and the young, the ſachem, the warrior, and the women, whenever they can obtain ſtrong liquors, indulge themſelves without moderation, and without decency.

cy, until universal drunkenness takes place. All the tribes whether placed in a temperate, or in a severe climate, appear to be under the dominion, and unable to govern this appetite.

An effect so universal and singular, must have an general and universal a cause. The cause will be found to have a deep and a strong foundation, in their manner, custom, and habit of living. Their constant method of living, was on raw or boiled meat, and fresh water. This did not furnish the defires of nature; and naturally produced an appetite for every thing, which was astringent, stimulating, and inflammatory. When they met with ardent spirit, they found that, which is the most highly gratifying to such an appetite. The hardiness and sufferings to which the Indian was exposed, their want of comfortable refreshments and support, and the extremes of heat, cold, and moisture, to which they were subject, were constantly adding new force to an appetite already excessive. Few of the white people, who have been reduced to such a situation for a few months, have been able to preserve their temperance. The Indian proved wholly inadequate to the trial. Unaccustomed to lay any restraint on his appetites and passions, and unable to bear but a small quantity of the liquor, to which he had been unused, he is overcome upon the first trial. His appetite, the more inflamed by irregular enjoyment, becomes more keen and raging, until extreme excess puts it out of his power to indulge himself any longer. Nothing but a total change of the whole method of his living, will enable him to preserve that temperance and regularity, which to a person surrounded with all the comforts of life, is an easy and a common attainment.

Cruelty.—There are no passions in the human mind, which operate with so much force and fierceness, as those of anger and revenge. The customs

and

the maxims of polished societies, with all the aid of their laws and religion, have not as yet been able to give a due regulation or restraint to these passions. In many cases, an offended individual cannot be made to believe, but what it is right and best for him, to be the judge and the avenger of his own injuries; and that it is the mark of meanness, to leave it to the laws of society, to make a proper retaliation to the wrongs he has received. Higher attainments must yet be made in the state of society, before an adequate restraint and regulation will be found for these passions.—In the breast of a savage, they rage without any controul: Instead of being taught any restraint, the young savage is taught in early life, to gratify and indulge them. The whole force of education, example, custom, habit, and manner of living, operate with a decisive influence, to give them new force and vigour. By the government of the tribe, the revenge of injuries is left in the hands of every individual; and to be patient and moderate, is the highest mark of meanness and want of spirit. To give further force to the spirit of vengeance, all the maxims and customs of war, have placed the point of honour, in rendering the spirit of revenge, implacable, unabating, and such as never can be satisfied, subdued, or lost. Aided by all these motives and considerations, anger and revenge, become fierce, brutal, horrid, bloody, and implacable passions, in the breast of the savage: More like the destructive rage of a beast of prey, than like a passion in the heart of a human being.—The effect, is a barbarous and unrelenting cruelty: Far from pitying, sparing, or forgiving, the savage aims at the ruin, destruction, and utter extermination of his enemies. Hence the method of carrying on his war, was to destroy men, women, and children: To plunder and burn their towns, and villages: To torture and torment their prisoners: And to sweep off whole tribes, with an universal

indiscriminated carnage. This seems to have been the wish and aim of every tribe, when they engaged in war. A barbarous, unrelenting cruelty, distinguished and marked all their steps.

The cruelty of the Indian seems to have arisen from the passions of anger and revenge. It is not to be denied but that there are other passions, which have carried civilized nations to the same dreadful extremes in cruelty.—*Avarice* led the Spaniards to perpetrate more enormous crimes and cruelty upon the Indians, than the Indians were ever capable of returning. The scene of promiscuous calamity, destruction, murder, and butchery, which the Spaniards carried through all parts of Southamerica, in the number, design, degree, duration, variety, and enormity of its cruelties, far exceeded any thing that was ever perpetrated by the Indians. If we are to believe the declarations of a celebrated modern statesman,* the avarice of a company of merchants, has murdered millions and millions of mankind, by starving them to death in *Bengal*.—The spirit of *superstition* and *bigotry*, is equally cruel and unrelenting. The murders of the inquisition subsisted for centuries; They were sanctioned by law, and are not yet done away. Imprisonment, confiscation, and death in its most awful forms, were the punishments which bigots, whenever they had power, never failed to inflict with great pleasure, upon those who were wise and virtuous enough to oppose them. The massacre on St. Bartholomew's day, in 1572, was one of the most barbarous and horrid of all human transactions. In the midst of the most polite city in Europe, the king, princes, nobility, and priests, turned monsters, assassins, and butchers; and murdered thirty thousand of their fellow men, on account of their religion. Their rage was attended

* Mr. Burke.

with circumſtances of inhuman cruelty and barbarity, far exceeding the fierce and bloody paſſions of the ſavages of America.—Our own countrymen ought not to forget, that revenge has alſo tranſported them into a conduct, equally inhuman and barbarous as that of the Indians. At the concluſion of the Indian war, in 1676, the government tried ſeveral of their captives, by the Engliſh laws; Some were condemned, and executed upon the gallows; and others were ſent to conſume their days, in the ſlavery of the Weſtindian iſlands: A puniſhment, to them more ſevere than death.

In the cruelty and barbarity of the Indian, man appears in a ſituation but little removed from the brutal ferocity of the beaſt of prey. But when avarice, bigotry, and revenge, produce the ſame infernal ſpirit among civilized nations, cruelty appears with a more diabolical aſpect; not like the rage of wild beaſts, but like the fury and vengeance of a combination of apoſtate ſpirits.—The progreſs of knowledge, humanity, and refinement, will afford the only effectual remedy for this evil.

Such were the regulations, cuſtoms, and manners of the Indians, the original men of America. They have been viewed by philoſophers, in the moſt oppoſite and contrary lights. Some have ſuppoſed that the Indians were in the infancy of exiſtence, that the whole continent of America was but lately raiſed out of the ſea, and that her inhabitants were in a ſtate of degradation, unworthy to be compared with the men of the more ancient and improved hemiſphere.* On the contrary, others have contended that in the rudeſt and moſt ſimple ſtate, man attains an independence, a dignity, and a nobleneſs of mind, which is never found, but is always loſt, amidſt the refinements of poliſhed ſocieties: That the

* Buffon.

the highest dignity and nobleness of man, is derived solely from nature, and is always debased and corrupted by guilt, refinement, and the arts.*—To view this subject in its proper light, it will be necessary to compare the savage with the civilized state, and to mark the various *Advantages*, and *Disadvantages* of it.

THE SAVAGE STATE FAVOURABLE TO THE HEALTH, ACTIVITY, AND VIGOUR OF THE BODY.—Among the *advantages* that were connected with the savage state, it may justly be esteemed one, and a matter of much importance, that it was favourable to the vigour, activity, and health of the body. It is by exertion and exercise, that the body acquires its most improved state of activity, firmness, vigour, and health. Accustomed to range the forests in quest of game, the Indian acquired an habit and activity in travelling, that exceeded that of any other people. In the expedition, swiftness, and perseverance of his course, he much exceeds the European.—No people bear hardship, suffering, and fatigue so well: The extremities of heat and cold, of hunger and thirst, of bad weather, and of bad accommodations, are perfectly familiar to the Indian: And he bears them with a much less effect upon his constitution, than the men who have been used to better accommodations.—Unaccustomed to the steady and regular employments of agriculture, his body does not acquire the strength that the Europeans have. And when the exertion, is an exertion of strength, and steady labour, the white man is found to be the strongest. Those only of the Indians, who have been educated and trained up to steady and hard work, are equal to the white men in bodily strength. In running the race, and in bearing hardship, the Indian exceeds; but in strength of body, and bearing hard and stead labour, he is generally unequal to the European.

In

* Rousseau.

In respect to health, the savage state seems fully equal to the civilized. Used to all the variations of the weather and climate, he suffered but little from such changes. The diseases to which the Indians were subject, were chiefly those which arose from exercise, hardships, and fatigues. Fevers, the asthma, and paralytic disorders, made the capital articles in the history of the Indian diseases. But that numerous and fearful train of maladies, which arise from luxury, sloth, intemperance, and want of exercise, were unnamed, and unknown among the Indian tribes.—In their villages there seemed to be a greater number of decayed and aged persons, than are generally to be found among an equal number of white people. But as they had not the art of numbers and computation, no exact accounts could be procured of their age. This article rests therefore rather upon appearance, and indication derived from decrepit and shrivelled bodies, than from any proper and authentic accounts of the years and longevity, to which they attain. All appearances however seem to indicate, that activity, vigour, health, and age, were to be found to great advantage in the savage state.

FAVOURABLE TO FIRMNESS AND FORTITUDE OF MIND.—The situation and employment that promoted the vigour and health of the body, tended to produce independence, firmness, and fortitude in the mind. Inured to suffering, hardship, and danger, the mind of the savage was formed to an habitual firmness, and courage. His mind became composed and collected in critical and dangerous situations: And he suffered but little from apprehensions of fear.—The spirit of freedom and independence, was cultivated and confirmed by every circumstance attending his education, employment, and reputation. Neither corrected nor checked in his early years, retarded or stopped in any pursuit, he knew

of

of no control, or restraint. Master of his own actions, and never willing to moderate his passions, the spirit of freedom and independence took the entire possession of his soul, to which, and unreservedly conscious of this independent spirit, he acted in circumstances of distress, and danger, with amazing force and magnanimity of mind.—But that which the savage esteemed his greatest glory and highest dignity, was his fortitude and bravery. To bear hardship, to endure suffering, to be unmoved in the midst of torment, and to rise superior to any thing that could be laid upon him; this, was the highest honour, and the noblest attainment of the warrior. And in this it is not to be denied, that the human mind attained in the savage state, a fortitude and a magnanimity that it does not attain, amidst the refinements, customs, and maxims of polished nations.

Amazed at the firmness and fortitude, which the savage displays in the most dreadful of all situations, several philosophers have aimed to discover some apathy, some natural defect, or want of sensibility in his frame, which qualified him to bear pain with less feeling, and with more fortitude, than other men. There is no such defect in his constitution. His magnanimity arises from a sense and principle of honour. This is the first principle he is taught; the sole object of his education, profession, and pursuit. Amidst the rudeness and hardihood of the savage state, this principle acts with more force and vigour upon the human mind, than it ever acquires amidst the refinements and softness of a more polished state of society. Refinement, and the arts, soften and relax the mind; philosophy dibilitates the body, while it aims to correct all rudeness and excess, in the mind, and to give it a just habit and tone of thinking and acting: But in the rudeness of the savage state, every thing concurs to give an unaltered firmness to the body, and to the mind; the principle

ciple of honour has nothing to oppose or take it. And it will be in the most hardy body and mind, that nature and honour will act with the greatest force and vigour. The principles of religion only, have ever produced a similar phenomenon. The heroic spirit of the martyr, undaunted and triumphant in the torture, and in the flame, has alone exceeded or equalled the fortitude and magnanimity of the man of nature.

FAVOURABLE TO POLITICAL TALENTS, AND VIRTUES.—The savage state was also friendly to some of the political talents and virtues. *The love of his country*, derived from nature, cherished by education, ambition, precept, and example, became a very powerful principle in the breast of a savage. His affections were confined to the limits of his own tribe, and his views never extended any farther. His glory terminated in the services he could render to it; And the greatest of all attainments was to expand the national fame, reputation, and conquests. To this he became attached by birth, education, and interest; by ambition, honour, and a thirst for glory. Every passion that glowed in the breast of the savage, served to increase and add strength to the love of his country. No motives of ambition, gain, revenge, or policy, ever led him to betray its interests or councils, to desert to the enemy, or to prove a traitor to the country and tribe, that gave him birth. This principle connected together the members of the same tribe: It seems to have taken the deepest root, to have acted with the greatest force, and to have been the least corrupted, in the savage state.

When the interests of their country were to be considered, much *prudence* and *wisdom* were displayed in their councils. The chiefs and elders consulted with great deliberation, seriousness, and calmness; and without any appearance of provocation, resentment,

ment, or impatience at contradiction and opposition. Every proposal was considered; the probable effects and consequences, advantages and disadvantages, were examined and weighed. No heat, anger, ill nature, or reflections upon one another, but perfect calmness prevailed: And that conclusion was embraced, which appeared to be most beneficial to the tribe. Those of the Europeans who have attended these councils of the savages, have compared them to the accounts historians have given us, of the proceedings of the senates in the ancient republics.* They bore the appearance of solemnity, gravity, and deliberation. In these councils, *integrity and public virtue* was always preserved. The objects they had to determine, were not of a trivial or insignificant nature: They were those, which involve all that is the most dear, valuable, and important to man, in any stage of society. The preservation and protection of their property, the safety and the lives of their wives, children, and fathers, the existence, the independence, and the freedom of their country. The councils of civilized nations may be employed upon objects of a much greater extent, but they never can contemplate objects of more importance, of greater value, or of a higher nature. In attending to them the mind of the savage became composed, sedate, grave, and serious. He had no private interest to corrupt him; no broken fortune to be repaired; nothing to be expected from the misfortunes of his country, from lucrative jobs, posts of honour and profit; from the management of the public wealth, or from the weakness, prejudice, and favourite passions of a prince. No emoluments or advantages could accrue to him, but those of the public good. In such a situation, corruption would not enter into the councils of the savages. There was nothing to be gained by intrigue, dissimulation, or knavery.

* Charlevoix iii. 26. Smith's Hist. Newyork, p. 53. Phil. Edit.

honours. All the advantages that could arise to individuals, must arise from the general good of the tribe. And where there was nothing to be gained by corruption, there was nothing left for their counsellors, but to display their greatest wisdom, integrity, and public virtue.

The nature of their government and councils was also favourable to *eloquence*, and the art of *public speaking*. This seems to have been the only art in which the Indian rose to any eminence. Unable to remember an irregular unconnected discourse, the Indian was extremely fond of regularity and method. When he spoke, his speech was short and laconic, and the meaning was conveyed in bold and strong metaphors. When they return an answer, they repeat the whole that has been said to them, and reduce it into a strict and regular order. Their words are but few, the language strong, and figurative, the figures expressive, vigorous, and bold, their manner, grave and animating, the tone, determined and decisive, and the sentiment they mean to convey, so clearly expressed, that they are never misunderstood. An historian who was present at several of their conferences with the English, gives this account of the appearance and manners of their orators. "Their speakers deliver themselves with surprising force, and great propriety of gesture. The fierceness of their countenances, the flowing blanket, elevated tone, naked arm, and erect stature, with a half circle of auditors seated on the ground, and in the open air, cannot but impress upon the mind, a lively idea of the ancient orators of Greece and Rome." —Some of their speeches in manliness of sentiment, in the force of expression, and in the elegance of the arrangement, have been fully equal to the productions of the Grecian, Roman, or British eloquence. And in no case does

* Smith's Hist. of Newyork, p. 58.

X relief,

[illegible]

he

THE SAVAGE STATE UNFAVOURABLE TO ALL INTELLECTUAL IMPROVEMENTS.—As one disadvantage

[illegible]

[illegible]

[illegible]

And

And this revelation becomes more clear, plain, and

power, and dominion.

The immortality

ability among the

itself results from our future hopes, and

things scarcely ever despaired and sunk to low, but

have hopes and believed that death will not prove

annihilation of his being. This sentiment pre-

vailed in every part of America. The custom

firmly believed it, that it was their general custom

to bury with the dead their bows, their arrows, their

spears, and some vessels, that they might

be prepared to begin their course with ad-

vantage in another state. There might be a few

exceptions, but the general sentiment was nearly the

same in all the nations.

numbers, the existence of a God

and the immortality of the soul, were nothing more

to the savage, than the dictate and voice of nature.

They were the objects of his inquiry, discourse,

reasonings, and meditations. Their minds had made

no improvements, no cultivation of the arts or sci-

ences had produced, and they had very little in-

fluence on any part of his conduct. They had not

produced any domestic, or public institution, any

form, rites or mode of worship; or any system of

manners and customs favourable to national virtue

and religion. Without a code, without a sample

of either, or any thing else, the Indian was sunk, and in the

thickest gloom of ignorance, superstition and stupidity.

His reason never exercised on any intellectual

amusement or exertion, he remained in a state of

brutish

nature;

fide.

the hands, particularly that of iron. From this metal is formed almost every instrument, that is employed in war, or in the Civilized nations here. Whilst the Indians of the different parts of this metal, in every kind of art that they pursued. The Indian was in no capacity to attempt any improvement. Copper, silver, and gold, have been found in their pureſt ſtate, in the rocks, mountains, and rivers; and were the metals, which were ſoft, known and uſed. But nature never completes the formation of metal. It muſt pass through two or three tedious operations by fire, before it appears in its perfect and uſeful form. With the ſoftest metals the Indians in ſome parts of America were well acquainted: But of the nature and uſe of iron, all of them were wholly ignorant. Deſtitute of this capital advantage, all their tools and inſtruments in Europeans would have been wholly uſeleſs. Their axe was made of a ſharpened ſtone. Their knife was formed out of a ſhell, or bone. Every other inſtrument was equally imperfect and ill contrived. The arms they had contrived for defence, or attack, were equally feeble and awkward. A club made of hard wood, a ſtone headed or the Britannia artificial with a flint or a bone, a bow and arrow, conſtituted the whole artillery of the Indian war. Of domeſtic utenſils and household furniture, they had nothing that deſerved the name. A bed, a chair, a table, a pot, a kettle, or an oven, were wholly unknown. Their bread was baked on the coals. Their meat was broiled on the ſame manner. Their greateſt art in cookery, was their method of boiling their food. A piece of wood, or a ſtone, with extreme labour, was formed into a hollow, and filled with water; and this water was made to boil, by throwing into it ſtones heated red hot.

The greateſt performance of the Indian genius, was the conſtruction of his canoe. With infinite

[illegible] they sometimes followed upon a treat and gave it a form adapted to the purpose of navigation, [illegible] canoes, [illegible] could pass a river, a large lake, or [illegible] with much safety and dexterity. Another kind of canoe was formed out of the bark of the elm or birch. This was the work of but a few days, and was extremely light and serviceable. It was of sufficient dimensions to carry four or five Indians, and its light, that one of them could easily carry it on his back. The dexterity of his management, the swiftness of his voyage, and the safety with which the Indians pass the falls, rapids, and waves in this kind of [illegible] appeared surprising to those persons, who were fully acquainted with the arts of navigation. It seems to have been the highest attainment, to which the genius of invention of the Indian, had ever [illegible]

In the application and use of particular vegetable, animal, and mineral substances, the Indians seem to have had some information, which ought to have been more attended to, and better ascertained. They certainly knew of some substances which gave the most vivid and permanent colours; and of others which contained the most subtle, active, and powerful poisons. In several cases of poisons, wounds, and some other disorders, the Indians had the knowledge of very valuable medicines: And they derived support, refreshment, and medicine, from several plants and vegetables, in which the English had not discovered any such virtues. The knowledge of such facts, was the result of such observations, as experience naturally produced. But as the Indian never attempted to improve any information which he had, and knew of no method to preserve it but tradition, he made small advances in this kind of knowledge; and it was rather a matter of secrecy, than of investigation. Nor was there any thing in

his

his situation, or employment, adapted to call forth the latent powers of [illegible] and to produce the [illegible]

[illegible] advantage [illegible] the first [illegible] the earliest [illegible] of Virginia, it has been computed, that the number of Indians in that part of the continent, did not amount to more than one for every square mile. I do not find any account, which will lead us to estimate the number of Indians in New-England, at a higher rate than this.—In those parts of the United States, where the farms are well managed, a farm of one hundred acres will well support a family of ten persons. This amounts to fifty persons, on one square mile. The Indian population then, compared to what has already taken place in those parts of the United States, which are well settled and cultivated, was in no higher a proportion than one to fifty four. A difference so unreasonable as the production of life, denotes some essential defect in the savage state.

Population depends upon a variety of circumstances, all of which are never found to concur in favour of any people. In the form and situation of the Indians, there were fewer circumstances favourable to population, than in any other form of society.—In the constitution, form, and vigour of his body, nature was bountiful to the Indian. In the dimensions and size of his body, in the proportion and perfection of all his limbs, members, and organs, he rather exceeded than fell short of the European. All that have been acquainted with the savages, have been struck with this circumstance. In no race of men, the symmetry of the human body appeared to be better formed, more nicely adjusted, or to be more perfectly proportioned in all its members and parts. No deficiency there,

* Jefferson's Notes on Virginia, p. 100.

have

which

which have been mentioned, are sufficient to account for all that has been common to the defect of the Indian population. That these circumstances do not contain the cause, which rendered the Indians unable to stand among the nations, is confirmed by this additional evidence. Wherever the Indians have been placed in situation favourable to increase, they have become equally prolific as the descendants of Europe. Several of the traders among the Indians have married with their women: When the Indian women have been thus provided with comfortable food, raiment, and places of abode, and relieved from the fatigues and distresses of the savage life, they have raised up as large and numerous families, as are found in the houses of the white people. And among themselves, when a tribe was fixed on the bank of a river abounding with fish, or in a spot where the game was plenty, and they remained undisturbed by their enemies, their numbers soon increased, their women became more valued and reverenced, and population assumed a greater force and vigour.

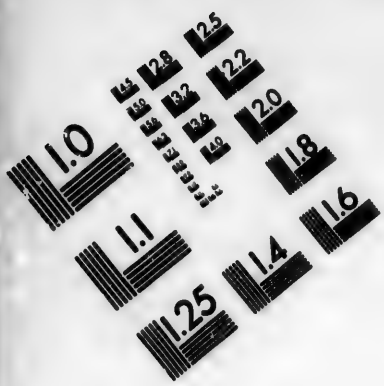
In those parts of America, the Indians had advanced beyond the savage state, and acquired some of the arts and conveniencies of the civil state, the same increase of numbers took place among them, that is seen among other nations. The intercourse between the sexes approached nearer to decency and refinement. Greater attention was paid to the women. The men became sensible, how much their happiness might be promoted, by the enchanting tenderness of the female. In the empires of Peru and Mexico, the Indians had made considerable advance to such a state. And their population had become vigorous and rapid. Their numbers astonished the appearance of things in Europe; and their cities abounded with inhabitants. Sixty thousand families, were said by Cortez, to be contained

From the humble circumstances, and miserable state of the Indian in the simple, rude, philosophers of great eminence and abilities, have formed the extravagant systems and theories. One has affirmed that the Indian of America, has an inferior constitution to the European; that he is weak, and deficient in the organs of generation; without hardiness and impotent with the female; and delicate of mind and effeminate to his wife and children.* Another is positive that he is not descended from the same root or parent of the white, but is a distinct, separate and inferior order of men, of a different original, and species.† And it seems to be generally asserted and believed, by the writers who have given us their accounts, that the men of America were of less force, energy, and vigour, than the men of Europe, and laboured under some physical defect or degradation.

The clearest proof, and the most unexceptionable evidence, ought to have been produced, before a philosopher admitted as facts, things so repugnant to the general principles and laws of nature: Had this been attempted, it would have corrected the error; for the facts are all in opposition, to what has been so often asserted, and quoted. No such animal was ever seen in America, as the Indian M. de Buffon described in Paris.—If the facts had been true,

* M. de Buffon, xviii. 246.

† Kaimes' Sketches Hist. of Man, Vol. I. Sketch 1. Vol. III. Sketch 12.



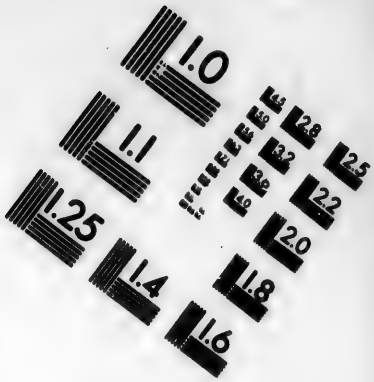
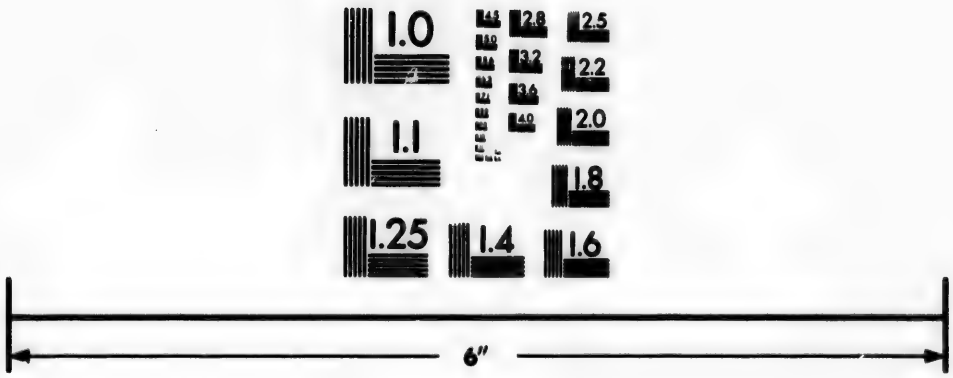
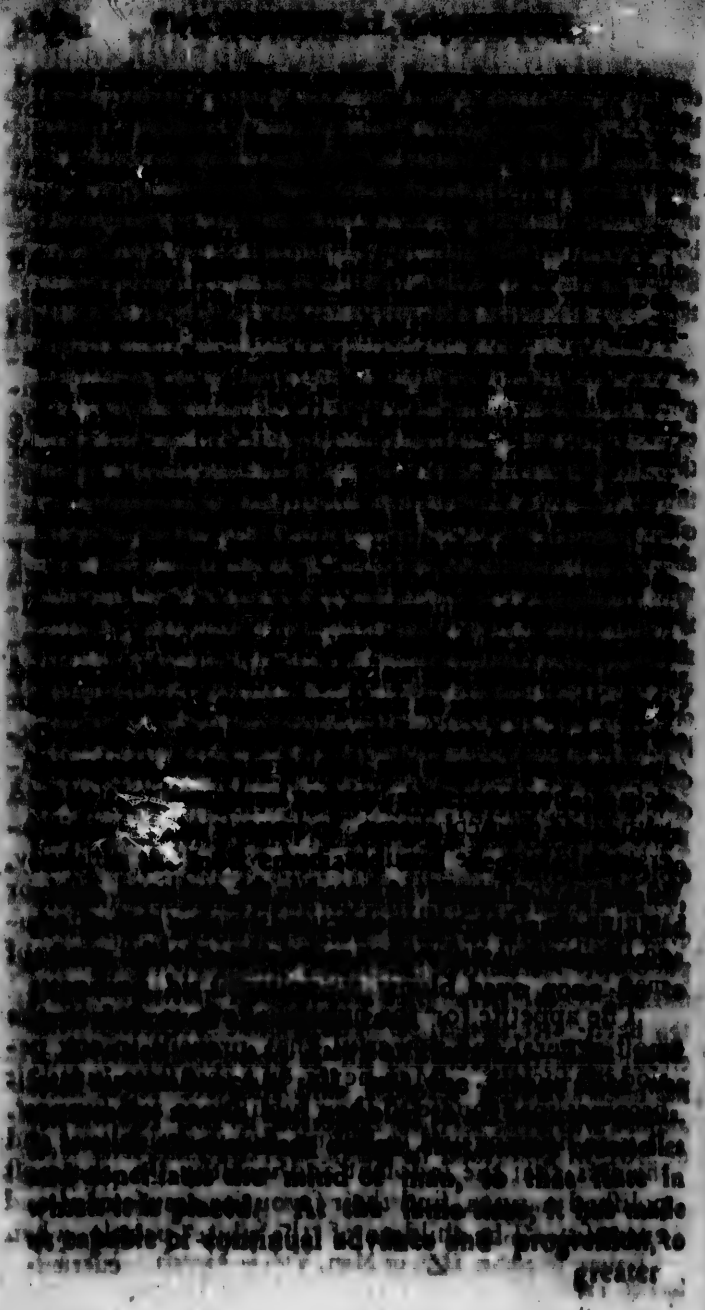


IMAGE EVALUATION
TEST TARGET (MT-3)



Photographic
Sciences
Corporation

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503



greater

CHAP.

[illegible] and their mode, every where appeared to be the same race, or kind of people.—In every part of the conti-

nent,

tinent, the Indians are marked with a similarity of colour, features, and other circumstances of appearance. [illegible] the effect of the climate, through many generations, on the colour of the inhabitants. They, indeed, differ in some particulars, as there is found a variation of colour in children of the same parents, and even in children of one father and mother. Ulloa, a Spanish philosopher, had an opportunity of making observations many of the tribes inhabiting the Southern [illegible] He observed also the [illegible] Cape Breton, in Nova Scotia, and in Newfoundland; the latter, he says, were [illegible] different from the others in their features, [illegible] manners and customs. [illegible] believed that the latter were [illegible] feet on the continent, [illegible] have been driven [illegible] this, he thinks, [illegible] nation of people [illegible] spread over so large a tract of country, as the [illegible] men of America.

Were there [illegible] with the [illegible] of the other parts of the [illegible] Indians, from the [illegible] They were of the [illegible] ancient nation in Asia. [illegible] we are able to trace the [illegible] action of the Finlanders to [illegible] we can [illegible] with certainty. [illegible] They were the [illegible] or rather [illegible] the Indians of both continents are marked with the [illegible]

* Robertson's [illegible]

† Ulloa, Notic. Americanæ, p. 308.

* Gazetteer, Geog. p. 466.

† Ulloa's and Stone's progress. Encyclopedia. Hist. Amer. p. 460.

2. In the empire of Peru, there were several species of fruits, animals and vegetables, different in appearance, nature, and use from those of Mexico. Manco Capac and Mama Ocollo, the knowledge of

ed

ed not only by a similarity of manners and customs, but by the affinity of language, and a collection of similar words, made from all the widely diffused islands and countries visited by this celebrated navigator.

A people who had thus spread over one half of the globe, from the coast of Africa towards America, and who had settled all the islands that lay between them, could scarcely have avoided arriving upon the western coast of America, and leaving some of her people there. Several of the islands that were settled, were near the American coast; and it must have been much easier to have discovered the continent, along the western coast of America, than to have found so many small and scattered islands. It is therefore highly probable, that the same people who spread over the islands in the Pacific ocean, should at times arrive also on the western shores of the continent.—In both these ways, might people from different nations in Asia, find a passage into America, and at very different periods of time.

The Indians, however, were not the only men which appeared in America. Another race or kind of men were settled in the northern parts of the continent. These have been called *Esquimaux*. In their colour, dimensions, features, and customs, they differed much from the red men. They were of a sallow, or brownish complexion: Their size about four feet in height; their faces long and wrinkled; their noses thick and compressed; their eyes small and sunk; their cheeks much raised; their eyebrows and eyelids thick; with small legs and hands. This nation had spread over the most northern parts of America. They are found in Greenland, on the coast of Labradore, in Hudson's bay, and in all the coasts and islands on the west side of America, opposite to Kamtschatka. Their migrations had extended to Norton's sound, Onolaska, and Prince William's

William's ſound; one thouſand five hundred leagues from their nations in Greenland and Labradore. The ſameneſs of the people in theſe different places, has been aſcertained by their manners, cuſtoms, features, and complexion; but more decidedly by ſuch an affinity and ſimilarity of language, as leaves no room for doubt. It will be eaſy to determine from whence this nation of the *Eſquimaux* proceeded. Every thing in the appearance of this people, denotes them to be the ſame with the Laplanders, the Zemblans, the Samojeds, and the Tartars in the eaſt. Like them they are a nation of dwarfs; largeſt towards the ſouth, but decreaſing and dwindling towards the north. They have all the ſame ſallow complexion, deformed features, ugly appearance, and ſingular cuſtoms.—Whether the inhabitants, could paſs from the northern parts of Europe into America by land, is as yet unknown. But the paſſage by water, was at all times eaſy; and certainly, at a very early period. In the voyage from Norway to Iceland, and from Iceland to Greenland, or the coaſt of Labrador, the firſt part of the voyage was much the largeſt: And this was practiſed from the earlieſt times, of which we have any account. For the ninth century, when navigation was extremely imperfect, the paſſage from Europe to America was ſo well underſtood, that the Norwegians planted and ſettled their colonies in Greenland. There is but little room then to doubt, but that the nation of the Eſquimaux was derived from the ſame people in the northweſt parts of Europe.—Their deſcent therefore muſt have been from the Tartars of Aſia, for it was from them, that the Laplanders, who are ſpread over the northweſtern parts of Europe, were derived. In the year 1769, Pere Hall, an aſtronomer of Hungary, was ſent into Lapland to obſerve the tranſit of Venus. This able philoſopher had a good opportunity to become acquainted with the manners, cuſtoms, features, and language

of

of the inhabitants in that part of the globe: By his account, "it appears that the Laplanders are only degenerate Tartars; and that they, and the Hungarians, originally ſprung from the ſame breed of men, and from the ſame country."[1]

The two kinds of men then that were in America, were derived from the ſame ſource. The Indians and the Eſquimaux, were both deſcended from the man of Aſia; and probably the moſt of them, from the ſame nation, the Tartars.—In America then nature had not made different races of men, fitted for, and originally placed in different climates. The men of America were the ſame with the men of Aſia: And both of them migrated from one place to another, and ſpread through all the various climates of the earth. They were diſtinguiſhed by the differences of complexion, dimenſion, features, arbitrary cuſtoms, and peculiarities of manners, as much as the inhabitants are in other parts of the globe. But theſe differences muſt have been derived from climate, food, manner of living, or ſome other circumſtance; for they certainly were not derived from a different origin, or any particular local creation.

The conſtitution of man appears to be the ſame, in every part of the globe. Nature has given to him the ſame phyſical and moral powers, capable of different degrees of improvement, according to the ſtate of ſociety in which he ſhall be placed. But in no country, or part of the globe, does man appear to be an animal of climate. Among animals nothing is more apparent, than that ſome are animals of climate; that is, they are fitted by nature and conſtitution to ſome particular part of the globe, where alone they can ſubſiſt, multiply, and obtain their proper perfection. Thus the animals peculiar to the torrid and frigid zone, never have their particular climates out of choice; and when a change of

[1] Kaims' Sketches of the Hiſt. of Man, I. p. 13.

of climate is forced upon them, they degenerate, and waſte away. It is evident that man is not ſuch an animal. He can multiply, and attain his proper perfection, in all the various climates of the earth. Nature has not furniſhed him with any kind of covering, fitted to a hot, to a temperate, or to a cold climate: This is left to his own reaſon and induſtry, according as his ſituation may require. Nor has nature aſſigned to him any particular, invariable colour. Black is the abſence or want, and white is the mixture of all colours: And theſe are the extremes between which all the various complexions fall. Nature therefore has not aſſigned to man any covering, or any invariable colour, or any thing in his conſtitution, that has fitted him particularly for the torrid, temperate, or frigid zone: But has given him a nature and conſtitution, adapted to every climate. And in every climate which produces his proper food, the white, the red, and the black men, will ſubſiſt, multiply, and attain their proper perfection.—If nature has thus made man the animal of all climates, would it not be altogether unphiloſophical, to look out for local creations; or to introduce miraculous interpoſitions of the Deity, to explain thoſe differences among men in other places, which in America, we are certain were derived from natural cauſes?

ANTIQUITY.—In attempting to eſtimate the antiquity of the moſt poliſhed nations, we can derive but little information from hiſtory. No records, no monuments, no writings can be found, that reach back to ſo ancient a period. Leaſt of all is this to be expected from a race of ſavages, which had not the knowledge of letters. All the information we can obtain, muſt be derived from ſuch circumſtances and events, as imply or denote certain periods of years; and of theſe there are but few, in the tranſactions of the ſavage ſtate.

Some

Some information may be collected from the extent of the country they had settled. The continent of America, in its dimensions, amounts to one third part of the habitable globe. Over the whole of this continent had the savages extended, when it was first discovered by Columbus, in the year 1492. Their population had then attained its greatest perfection. No increase of their numbers has any where appeared to take place, since that time. No circumstance or event has taken place during the three hundred years, that the Europeans have been acquainted with the Indians, which can lead us to suspect that the savage state either has, or can admit of a greater population, than what it had already attained. Nor is it probable, that any increase of numbers, and population, could have taken place, while hunting continued to be the method of procuring subsistence.—From the observations that were made in Virginia, and Massachusetts, it has been computed that the population of the Indians upon the sea coasts, could not be estimated higher than one for every square mile. In the inland parts of the country, the Indian population certainly did not exceed this. Geographers have computed the number of square miles in America, to amount to fourteen millions, one hundred and ten thousand, eight hundred and seventy four. We cannot make a nearer computation, than to suppose this was about the number of Indians it required in the hunter's state, to spread over the whole continent.—How long a period would it require, for the savages to increase to such a number? There has been no instance of a more rapid increase, than that of the British colonies in America. They were aided by new emigrations from Europe: But so much were they retarded and broke up in their settlements by war, before the American revolution, that they did not in fact double their numbers in thirty years. The families of the Indians

dians did not contain more than half so many members, as those of the white people. The Indian population then will be greatly eſtimated, if we compute it to one half of that of the white inhabitants; and inſtead of thirty, admit ſixty years as the period of doubling. Aſſuming the population to have proceeded from one male and female, this would require thirteen centuries and an half to have ſpread over the whole continent, and produced one inhabitant to every ſquare mile.—The period of population could not have been leſs than this. But probably this period was completed long before Columbus came into America. The Indians in ſeveral places had gone out of the hunter's ſtate. On the ſea coaſts they were advancing into ſomething like monarchy. In Mexico and Peru they were become extremely numerous, and had eſtabliſhed extenſive and powerful empires; the duration of which, could be traced back four or five hundred years. From their extent and population then, we deduce with ſome degree of probability, that the Indians muſt have been ſettled in America eighteen centuries when Columbus firſt diſcovered the continent. This will carry us back three centuries before the chriſtian era.

The number and variety of their *languages* implies and requires a much longer duration, and an higher antiquity. The Indians of America had not only ſpread over the continent, but they had every where formed themſelves into a number of ſmall tribes. If we may judge of the number of theſe tribes from what took place in Newengland, and Virginia, they muſt have amounted to thouſands. Several of theſe tribes had ſubſiſted ſo long in a national form, and as a diſtinct people, that they had formed a particular language for themſelves. There were three original languages ſpoken in Canada; the Sioux, the Huron, and the Algonquin.* In Newengland, there were

* Abbe Raynal, V. 109.

were one or two others.† In Virginia there were three, different from either of these. In Mexico thirty five were discovered. In South America they were still more. In Maragnon, the Jesuits counted, as has been said, in each of these places, the dialects were nearly as many as their tribes. And yet these places make but a small part of the continent.—What an immense period of time does this require! A language may be sparated into different dialects in a few generations. But for these dialects to recede so far from one another, as to lose all resemblance and affinity; and several new languages to be formed, radically differing from one another, could not take place, or be effected, until the tribes had subsisted for many centuries, as distinct and separate nations. We cannot estimate this process by fixed periods of time, because we have no facts from which a computation can be made. But it may be compared to the state and progress of things in the other hemisphere. And we shall find the number of languages radically differing from one another, more numerous among the Americans, than they were in Asia and Europe. Is not this an indication, that the red men of America are as ancient as the other nations of the earth?—Having no letters, they had none. But nature, situation, and necessity, would operate as certainly, and as regularly upon them, as upon any other people. And would it not require as long a period of time to produce, and to form a language among the savages, as among any other people? This circumstance seems to denote an antiquity, fully equal to that which is claimed by many of the nations of the other hemisphere.

Their antiquity may also be traced back to the time, when the most useful arts were unknown, and

† Hutchinson, I. 457, 479.
‡ Jefferson's Notes on Virginia, p. 99.
§ Clavigero's Hist. of Mexico.

when the rest part of Asia had not the use of the metals, or of domestic animals. Some of the arts must have been nearly coeval with the human race; for neither food, raiment, or habitation, could be procured without something of them. Some of the arts have been gradually advancing, without owing much to any original inventor. And many of them are of such antiquity, that their origin and invention are beyond the reach of history. This is the case with the most necessary and useful arts of life. The origin of spinning, and knitting, of the plough, the loom, and the forge, were more ancient than any of our historical monuments, records, or traditions. But when those arts were invented, they never could be lost. Amidst the wars, changes, and revolutions, to which nations are exposed, what recalled the fine arts may perish and be lost. But no vicissitudes of human affairs tend to destroy those arts, by which all men derive their subsistence, and which are equally necessary to the conqueror and to the captive, to the oppressor and to the oppressed. The same observation may be made with respect to the use of domestic animals. A people that have experienced the advantages derived from the food they afford, and from the labour they perform, would never lose this kind of knowledge, but endeavour to apply it to such kind of animals, as they found in the country to which they repaired.—Of all these, the Indians of America were ignorant. They knew not the use of the metals, spinning, weaving, or the domestic animals. They had derived no such knowledge from their ancestors, nor had they acquired it themselves. At what period then, must they have settled in America? Before these arts were known in Asia.—Before the Scythians became husbandmen, and before the most necessary and useful arts were known in the midst of Asia.—Without attempting therefore to go back to the beginning of the creation

of God, we can find circumstances that will carry us as far back into antiquity, as any chronicle can pretend. The history and pretensions of the Chinese, do not imply or suppose any different sense of greater antiquity, than those which have been mentioned. And it suffices from circumstances and facts, not from traditions, that we must trace the antiquity and origin of nations.

PROGRESS OF SOCIETY.—The progress of society among the Indians would produce various, but the most useful part of their history. The rudest and most simple form that took place among them, was that which I have been describing. Wherever the Indians continued to derive their support from hunting only, continued bands age to age in the same condition, and made no improvement. While the means of subsistence were plentiful, and easy to be procured, the Indians had advanced beyond the state of the hunter, and began to raise their standard, and their agriculture. In such places, society began to assume a different form. From the hunter in their rudest and most simple form, we find the tendency of it was every where towards the monarchy. In the southern parts of Newengland, and Virginia, some of the tribes were advancing fast to the form of hereditary monarchy. In the heart of Florida, among the Natchez on the Missisippi, in Cuba, Hispaniola, and all the large islands, in Peru, Mexico, and Peru, monarchy had acquired its perfect form, its full powers, and complete establishment. In each of these places, the progress of government had been from petty sovereignties and independence, to almost absolute and unlimited monarchy. In the course of this progress, two remarkable circumstances appeared in every part. Among an empire and monarchy was established, in most respects resembling those which had arisen in the other hemisphere.

phere. In another part of America, an empire and a monarchy was produced, far superior to those which were produced in the other parts of the globe. In the empire of Mexico, almost every thing had taken the Asiatic, and European course. The great body of the people were reduced to a degraded and humiliating state, and held their lives, and performed their labours, under various names and degrees of degradation and abasement. A body of nobility were possessed of ample territories, of great privileges, powers, and honours, under different names and degrees. Above, and over all, was the monarch, enjoying supreme power and dignity. After being elective during the reign of eleven of their sovereigns, the monarchy was become almost absolute and hereditary, in Montezuma. The system of religion agreed perfectly well to the nature of the government: It was severe, cruel, and barbarous; and delighted in the spilling and shedding of blood. Human sacrifices of all others were esteemed the most acceptable, and availing; and the priests had the privilege, the honour, and the profit, of announcing or removing the vengeance of the gods. This system of monarchy had acquired a stability, a regularity, and a vigour, equal to any monarchy that was then upon the earth. Upon comparing the spirit of monarchy, unimpaired by representation, in Asia, in Africa, and in America, the spirit and the principles of it, will be found every where to have operated alike. It degrades the body of the people below the condition and nature of man. It exalts the nobles and the sovereign above the condition and fate, which nature designs or admits. In one form or another it has always been attended with a persecuting, cruel, and bloody religion, put into the hands of a wealthy, and powerful priesthood. It has constantly produced the spirit of war and devastation, and generally derived to itself security, wealth,

[illegible] and power from the military, successful [illegible]
[illegible] and [illegible] from the [illegible] especially by
[illegible] to a certain extent to [illegible]
simple [illegible] of responsibility to their
fellow-citizens, produced that consolidated, steady,
and universal [illegible] of power which, in every part
of the globe, has been the distinguishing and certain
effect of this form of government. The spirit and
principle have every where been the same; not the
least which the great Montesquieu withheld to all
[illegible] and wanted to find in it, but that total
want of regard and accountability to man, which,
with great accuracy and propriety, has been lately
named [illegible] of the people.

The empire of Peru has formed and governed
by [illegible] of monarchy, different from what has
ever been [illegible] among other people. For
successive monarchs, for a period of more than two
hundred years, had been invested with hereditary
and absolute power. They claimed their authority
not as derived to them in any manner or degree from
the people, but by the absolute and exclusive donation
of heaven. They declared themselves to be
the children of the sun, and clothed with divine and
unlimited power, they did all the civil and religious
affairs of the people. The sovereign was named
Inca, and he and his near relations, the family of the
Incas, were the objects of the people, that they
universally esteemed incapable of committing a crime,
or falling into an error. No other family might
marry or mingle with it, for fear of polluting the
heavenly blood. The people looked up to them
as to beings of a superior and heavenly race. And
all disobedience to them was visited not barely as
a crime committed against men, but as an act of
rebellion against God. The nobility of conquest was
nothing more than families of office. Though a dif-
ference of rank had taken place throughout the em-

pire,

pire, all the children of the Inca were supposed to belong to the [illegible] were well clothed and fed, [illegible] ed for their industry, economy, [illegible] ment, and happiness. [illegible] though absolute in power, established a government the most mild and gentle that [illegible] in any part of the earth. The [illegible] were so pure, that [illegible] The genius of the government was [illegible] punishments were ever executed [illegible] ring, they were viewed as the [illegible] and not of men. They [illegible] of prosperity and virtue, [illegible] the dominion of [illegible] of religion like their government, [illegible] and pacific. The [illegible] by fertility, beneficence, joy, and [illegible] of their adoration. They [illegible] the [illegible] of those productions which they derived from [illegible] vating plains they enriched by [illegible] They presented to him specimens of those works of ingenuity which they had performed by his light. And they brought to him some of those animals which were civilized by their influence. [illegible] ians never stained their altars with human blood, or admitted the savage idea, that the favour of heaven could be placated with the [illegible] by, and destruction of, men. Their system of [illegible] partook of the same spirit of mildness and civilization. They fought not to exterminate, but to conquer. They conquered not to enslave, but to [illegible] civilize, and reform. Never [illegible] the captive. No barbarous marks of [illegible] grace, triumph, or slavery, were [illegible] prisoners. They were taught the [illegible] of government and religion, as the [illegible] They were admitted to the [illegible] privileges, and

treated

[illegible] with the most healthy and natural [illegible] the example of the most [illegible] and the greatest, was to diffuse the manifold blessings of peace and happiness, to the people who were subdued. Such glorious genius, that spirit, and the effects of the system of government that was established in Peru, will scarce be thought to pronounce it superior to any that we have to be found upon the face of the earth. The genius and the spirit of it, were above all others, mild and gentle. The object and the end of it, were in fact, the improvement and the happiness of the people. And if any government ever possessed this effect, this government was the monarchy of Peru. Nor the attainment of the most polished nations of Asia, and Europe, of their arts, sciences, and improvements, but of the greater wisdom and simplicity of the Indians, and natives of America.

We have here a phenomenon, new, and almost incredible in the political world. Absolute, unlimited, and hereditary monarchy, which has never failed before or since to prove one of the heaviest curses, which has fallen upon mankind, in Peru became mild, gentle, and beneficent: And was the only engine employed during the reign of twelve successive monarchs, to refine, civilize, and improve the people; and so do the greatest good to mankind. Surely this was a system not founded in truth, or in nature, but in delusion and superstition. What could give it a duration so steady, uniform, and benevolent? Not the form, but the principle of it. It contained the best and the purest principle, that ever entered into the theory of human government. Its origin, duration, and power, depended wholly upon the will of the subject. The laws claimed immediate descent, and relation to the sun. The sun was the emblem of peace, and benevolence. Had the monarch stamped his character by enormity in crimes and

vices,

ment, or by a confluence of powers, might have taught the Romans that murders, oppression, vice, and cruelty, could not have been the genuine children of the Deity. If these had revealed the light of his divinity, and the power would have rested in his own hands, and the opinion of the people had formed of his divine defects, qualifications, character, and virtues, so submissive had the people been to their opinion, that through the whole period of their existence, they had taken the most effectual measures to endanger or oppose it, by any base and unjust conduct. And while they have pursued the true interest and happiness of the people, the public virtue and veneration increased. In the same manner and wisdom of the first the people have provided for the children of their first, and all their offices and opinions of the people the first found as the safest and most impregnable. But if his successors had plainly discovered, instead of being the child of the first, the child of folly, of vice, and abominable iniquity, his divinity, his power, and his empire would have ceased with the public opinion [illegible]. Instead therefore of laying [illegible] the people like the empire of Mexico, the monarchy of Peru, and the singular good fortune of being founded in the public sentiments. This rendered the Inca accountable to the people for every part of his conduct. And this sense of accountability would keep a constant sense of duty and the people in mind. Thus under the form of absolute hereditary monarchy, the government of [illegible] the unspeakable advantage of excluding [illegible] with all its odious difficulties and claims [illegible] embracing the best and purest principles, upon which civil government can ever be founded. The Indians seem to have been the only people, among whom

regard

[illegible] NATIONAL [illegible] SPIRIT

[illegible] to the public sentiment and [illegible]
[illegible] the [illegible]
[illegible] [illegible]
[illegible] [illegible]
[illegible]

CHAP. IX.

First Settlement of Vermont by the English. Grants from Newhampshire. Proceedings of Newyork. Violent Opposition of the Settlers. American War. Declaration of the Freedom and Independence of the State.

THE large and valuable tract of country, which is now known by the name of Vermont, was situated, between the Newengland provinces, Newyork, and Canada. Its distance from the English settlements along the sea coasts, and from the French on the river St. Lawrence, prevented any settlements being made in it, at an early period, by either nation: But both of them, were making continual advances towards it. So early as the year 1614, the Dutch had advanced one hundred and sixty miles up Hudson's river, and built a fort at Albany. In 1640, the French had extended far up the river St. Lawrence, and began their settlements at Montreal. In 1635, the English began the town of Springfield, upon Connecticut river, and by 1670, had extended as far up the river, as Deerfield. On September 22, 1696, Colonel *Fletcher*, governor of Newyork, made a grant to Godfrey Dellius, a clergyman at Albany, of a tract of land on the east side of Hudson's river. This tract extended from the northernmost bounds of *Saratoga*, to the rock *Tyconderoga*, (now called Split Rock, in the township of Willsborough) about seventy miles in length, and in

width,

width, twelve miles from Hudson's river. In 1699, this grant was declared by the government of Newyork to have been extravagant, and vacated on that account.*—In 1716 a tract of land was granted by the general court of Massachusetts, in the southeast part of the state, containing more than one hundred thousand acres. But it was not until the year 1724, that any settlement was made, within the bounds of Vermont. The government of Massachusetts, then built fort Dummer, upon Connecticut river. This fort, was then admitted to be within Massachusetts, afterwards it was found to be in Newhampshire, and is now in Vermont. This was the first settlement, any civilized nation had ever made, in this state. On the other side of the state, the French made their advances up Lake Champlain, and in 1731, built their fort at Crown Point, and began a settlement on the east side of the lake. This part of America became of course, the seat of war, and was constantly exposed to the depredations of both nations, and their Indian allies.

The provinces of Massachusetts and Newhampshire, had a long and tedious controversy, respecting their divisional line. This was not settled until March 5, 1740; when George the second, determined, "that the northern boundary of the province of Massachusetts be, a similar curve line, pursuing the course of Merrimack river, at three miles distance, on the north side thereof, beginning at the Atlantic ocean, and ending at a point due north of Patucket falls; and a straight line drawn from thence, due west, until it meets with his Majesty's other governments." This line was run in 1741, and has ever since been admitted as the boundary line, between Massachusetts and Newhampshire. By this decision, and the establishment of this line, the government of Newhampshire concluded, that their jurisdiction extend-

ed

* Laws of Newyork, Vol. I. p. 32. Edit. 1774.

of a tax well, as Massachusetts had claimed exclusive jurisdiction within twenty miles of Hudson's river. The king of Great Britain, independently of the authority of New-Hampshire, to make provision for the support of four Dutch churches, which had now fallen within their jurisdiction, and was known to stand on the west side of Connecticut river. From these circumstances, it will not be doubted either in Britain, or in America, but that the jurisdiction of New-Hampshire extended to the west of Connecticut river; but how far to the west, had never been examined, or called into question. Benning Wentworth, was at that time governor of New-Hampshire. In 1749, he made a grant of a township, six miles square. It was situated twenty miles east of Hudson's river, and six miles north of Massachusetts line. In relation to his own name, he gave to this township, the name of Bennington. For the space of four, or five years, he made several other grants, on the west side of Connecticut river. In 1754, hostilities commenced between the English, and the French in America, which put a stop to the applications and grants, and issued in a war between the two crowns. In 1759, the operations of the war, in this part of America, were terminated, by the surrender of Montreal, and the entire conquest of Canada.—During the progress of the war, the New-England troops cut a road from Charlestown in New-Hampshire to Crown Point, and were frequently passing through these lands; and their fertility and value, became generally known. Upon the cessation of hostilities, they were eagerly sought after, by adventurers and speculators. By the advice of his council, the governor of New-Hampshire directed a survey to be made of Connecticut river, for sixty miles; and three lines of townships, to be laid out, on each side. The application for lands constantly increased, and new surveys were made.

[illegible] Europeans [illegible] the purpose, but during the year 1631, not less than sixty townships of [illegible] square were granted on the west of Connecticut river. The whole number of grants, in one or two years more, amounted to one hundred and thirty-eight. And their extent, [illegible] from Connecticut river to what was claimed twenty miles east of Hudson's river, so far as that extended to the northward, and after that, as far west as the eastern shore of Lake Champlain. The cultivation of the country, and the number of the settlers, increased with surprising rapidity; and Wentworth had an opportunity to accumulate a large fortune, by the fees and donations which attended the business, and by a reserve of five hundred acres, which he made in every township for himself.

The government of Newyork intending to have the disposal of the lands, was alarmed at these proceedings. Charles the second, in 1664, had made an extraordinary grant to his brother, the Duke of York, containing, among other parts of America, all the lands from the west side of Connecticut river, to the east side of Delaware bay. This grant was inconsistent with the charters which had before been granted to Massachusetts, and Connecticut; and neither of them admitted it to have any effect with regard to the lands which they had settled, or claimed on the west of Connecticut river. And there were no principles, which apply to human affairs, by which this grant could bear a strict examination. If it be examined geographically, the bounds of it were contradictory, indefinite, and impossible. If it be subjected to a legal construction, the whole of it, upon James's accession to the throne, merged in the crown, and at his abdication, passed to William his successor. If it be considered as an instrument of government, it did not establish any colony or province of Newyork, or any power to govern any

such

such province. Upon this inadequate and blunder-
ing construction of Charles the second, Newyork
formed her claims and hopes of obtaining the lands
which Newhampshire was granting. To check the
proceedings of Newhampshire, and to intimidate the
settlers, Mr. *Cosby*, lieutenantgovernor of New-
york, issued a proclamation,* reciting the grants to
the Duke of York, asserting their validity, claiming
the jurisdiction as far east as Connecticut river,
and commanding the sheriff of the county of Al-
bany, to make a return of the names of all persons
who under the colour of the Newhampshire grants,
had taken possession of any lands to the west of the
river. To prevent the effects that might arise from
this proclamation, the governor of Newhampshire
put forth another proclamation,† declaring the grant
to the Duke of York to be obsolete, that Newhamp-
shire extended as far to the west as Massachusetts
and Connecticut, that the grants made by New-
hampshire would be confirmed, if the jurisdiction
shall be altered, the settlers were exhorted, not to
be intimidated, but to be industrious and diligent
in cultivating their lands, and the civil officers were
ensured to exercise jurisdiction as far westward as
grants had been made, and to punish all disturbers
of the peace. This proclamation served to quiet
the minds of the settlers. And after such assurances
from a royal governor, they had no idea that a com-
pact between two provinces, respecting the extent of
their jurisdiction, would ever affect the property of
such individuals, as had fairly purchased their lands,
under a charter from a royal government.

Newyork had as yet founded her claim to the
lands, upon the grant to the Duke of York; but that
sagacious government did not choose to rely upon
so precarious a ground. Applications were made
to

* 1763. Dec. 27.
† 1764. March 13.

the crown representing, that it would be greatly for the convenience and advantage of the people, who were settled west of Connecticut river to be annexed to Newyork, that the courts of justice would always lie that way, and that the people were desirous to be included in that government. The result of their applications, was a decision in favour of Newyork. On July 20th, 1764, his majesty ordered and declared, "The western banks of the river Connecticut, from where it enters the province of the Massachusetts bay, as far north as the forty-fifth degree of northern latitude, to be the boundary line, between the two provinces of Newhampshire and Newyork." This determination of the king, did not appear to be founded on any former grant to the Duke of York; but was a decision, *de novo*, as the decision, and convenience of the people, were supposed to require.

In this decision of the boundary line, there was nothing alarming to the people, who had settled on the new lands. They had no idea of disputing the jurisdiction, or opposing the government of Newyork. They conceived the title to their lands, would not be in any way affected, by the decision, but rather confirmed. And that the determination was expressed in language, (*de novo*) designed to relate to the future, and not to any past transactions, or time. Had the government of Newyork assigned the same construction to the royal decision, no controversy would ever have arisen; the settlers would have remained quiet and easy, under their jurisdiction. But a very different construction was put upon the royal determination, in Newyork. The government of that province

The inhabitants complained that a petition was presented to the king, signed with their names, but unknown to them. In their first petition to Congress, Jan. 7. 1776, they give this account of the petition, "We have often heard, and verily believe [it was] in your petitioners' names."

In conformity to this explanation, the grants from New-hampshire, were considered by the governors of New-york, as illegal, and of no authority. The new district was divided into four counties. The southern parts were annexed to the county of Albany; the northern, were formed into a county by the name of Charlotte. On the east side of the Green mountains, two counties were formed; Cumberland, to the south; and Gloucester, to the north; and in these courts were regularly held. The settlers were required to surrender the charters which they had received from New-hampshire, and to take out new grants from New-york, which were attended with great fees, and expence. Some of the towns complied with this requisition, and thereby lost their lands the second time. But the greater part refused it. And where it was not complied with, on the part of the grantees, new grants were made of their lands, to such petitioners as would advance the fees which were demanded. Actions of ejectment were commenced in the courts at Albany, against several of the ancient settlers; and the decisions of the courts were always in favour of the New-york proceedings, and against all titles and grants, derived from the governor of New-hampshire. The case of the settlers, did not admit of any relief, from the customary forms of law, but only from the equity, the wisdom, and the moderation, of a provincial government: But moderation, and tenderness of the rights of individuals, unable to defend their claims, was not to be expected from adventurers, and speculators, who had

had an opportunity to examine the titles they claimed under their enormous grants of the government. The governor and council, and the leading men in Newyork, availed themselves of this state of things, and derived much, very unreasonable profit, by making extravagant grants of the lands, that the governor of Newhampshire had acquired, by making the first

Although it proved an enriching fact to the gentlemen of Newyork, to receive judgment against the tenantry, it was not found so easy a matter, to carry those judgments into execution. When the sheriffs and their officers came to eject the inhabitants, from their farms and lands, they generally met with an armed opposition, from the possessors, and were not suffered to proceed to the execution of their office. The minds of the settlers, instead of being depressed into submission, seemed to derive new powers, from oppression. And the people soon began to associate, to defend one another, in their opposition to the courts and officers of Newyork.

When it was found, that there was an armed opposition and combination, against the proceedings of the courts at Albany, an attempt was made by the government of Newyork, to engage the militia to assist and support the sheriff. The people who were thus forced to march, in support of the sheriff, had no affection for the business. They were united in sentiment, with the settlers, and had no disposition to hazard their lives, in support of a quarrel, which they plainly saw, was designed only for the emolument of a few speculators, whose claims and conduct, did not appear to them, to be so justifiable as those of the people, against whom they were

D d compelled

* The fees to the governor of Newhampshire, for granting a township, were about one hundred dollars; under the government of Newyork, they generally amounted to two thousand or two thousand six hundred dollars.

compelled to leave the town. The Scots soon found that very little dependence could be placed on the public, which attended him. Upon the appearance of an armed opposition from the settlers, the Newyork militia could not be kept together; and the sheriff found his power was no more availing, when he was attended with the posse comitatus, than when he was without them.

This circumstance afforded much encouragement to the inhabitants, and they began to believe, they should find that support from the general sentiments of the people, in the adjacent states, which they could not find from law. Their opposition became more general, and daring, and some of the officers of Newyork became sufferers, for attempting to carry into execution the judgments of their courts. In this course, the difficulties and dangers were constantly increasing, until several on both sides were much abused, and wounded, and no officer from Newyork dared to attempt to dispossess any of the settlers of their farms. The actions of ejectment however still went on, in the courts at Albany, but no attention was paid to them, nor was any defence made by the settlers; but they were never suffered to be carried into execution. And when all other methods had failed, the most active of the leaders were indicted as rioters.

The main body of the settlers at this time, consisted of a brave, hardy, intrepid, but uncultivated set of men. Without many of the advantages of education, without any other property than what hard labour, and hard living had procured, destitute of the conveniences and elegancies of life, and having nothing to soften or refine their manners, roughness, excess, and violence, would naturally mark their proceedings. To deny such people justice, was to provoke and arm them against it, to confirm all their suspicions

[illegible] and [illegible] against [illegible] to give them an excuse for [illegible] and violence. [illegible] the government of Newyork gave of their proceedings, the [illegible] bold, able and courageous in their efforts, it is probable the experiment would prove just [illegible] appearance of their contempt, and oppression in the end. But when they called their opposition, felony, treason, and rebellion against lawful authority, the people of the adjacent provinces, [illegible] to have believed, that the government of Newyork was [illegible] able, in making and executing such laws, as called their cities to their [illegible] opposition, than the settlers were, in using [illegible] open and avowed opposition to them.

In this scene of violence, and opposition to the proceedings of Newyork, Ethan Allen placed himself at the head of the opposition. Bold, enterprising, and ambitious, with great confidence in his own abilities, he undertook to direct the proceedings of the inhabitants. He wrote and dispersed several pamphlets to dispute the injustice, and designs, of the Newyork proceedings. And so oppressive were those measures, that although Allen was a very indifferent writer, his pamphlets were much read, and regarded, and had a great influence upon the minds, and conduct of the people. The uncultivated roughness of his own temper and manners, seems to have assisted him, in giving a just description of the views and proceedings of speculating land jobbers. And where all was a scene of violence and abuse, such a method of writing, did not greatly differ from the feelings of the settlers, or from the style of the pamphlets that came from Newyork. But though he wrote with asperity, a degree of generosity attended his conduct, and he carefully avoided bloodshed, and protested against every thing that had the appearance of meanness, injustice, cru-

elty,

* May 19.

furrender

* Allen's Narrative, p. 49—68.
† March 9. Allen's Narrative, p. 83—86.

[illegible] (if indicted for accession to [illegible] punished) to be executed and [illegible] and that [illegible] by the order of persons [illegible] without [illegible] of charge; and that it shall and may be lawful for the [illegible] of Judicature of this colony, or the [illegible] of oyer and terminer, or general gaol delivery, for the [illegible] county affected, to award executions against such offenders as aforesaid, as indicted for accession of [illegible] perpetrated after the passing of this act, in such manner as if he or they had been convicted and attainted in the supreme court of judicature, or before such courts of oyer and terminer, or general gaol delivery respectively." All crimes committed in the [illegible] by this act subjected to trial in the county, and by the courts at Albany. By the same [illegible] proclamation was issued by the governor of Newyork, offering a reward of fifty pounds each, for apprehending and securing Ethan Allen, Seth Warner, and six others, of the most obnoxious of the settlers.

With this act all prospect of peace, or submission to the government of Newyork, ended. At a general meeting of the committees for the towns lying on the west side of the green mountains, it was resolved, "That for the future, every necessary preparation be made, and that our inhabitants hold themselves in readiness, at a minute's warning, to aid and defend such friends of ours, who, for their merit in the great and general cause, are falsely denominated sufferers; but that we will not act any thing, more or less, but on the defensive, and always encourage due execution of law, in civil cases, and also in criminal prosecutions, that are so indeed; and that we will

also

* April 14, 1774. Page 28.

...ed to the support of our power, the officers ...ointed for that purpose. The proprietary party carried the matter full further, and in a ...ublick to the people of the county of Albany, and others who were known contrary to the New-Hampshire grants, made the public declaration:

"We will kill and destroy any person or persons whomsoever, that shall presume to be accessary, aiding or abetting in taking any of us."

To avoid the government of New-York, a plan was contrived about this time, by some of the inhabitants, and Philip Skeen, to have the New-Hampshire grants formed into a royal government, as a new province. Skeen was a colonel in one of the king's regiments, and had large possessions on Lake Champlain. To effect his designs, he went to the court of Great-Britain, and seems to have met with some success. On March 16th, 1775, he wrote to one of the agents, that he was appointed to the government of Crown Point, and Ticonderoga, and should soon call upon all the Hampshire inhabitants, or an address, to shew their loyalty to the king; and he had no doubt, but they would shew themselves to be as loyal subjects as he had represented them.*

An event took place in the spring of the year 1775, which served still further to exasperate all parties. In consequence of the proceedings of the British court, the American colonies had met in Congress, Sept. 5, 1774; and the Congress had advised the people to maintain their liberties, in such ways as should be found necessary. The courts of justice, which were held under the royal authority, in all the adjacent provinces, were either shut up

* April 18. Page 45.

† Skeen's letter to Capt. Hawley, dated London, March 16, 1775.

holden at Westminster, on March 13th 1775. Both the Vestibule of that, and the adjacent towering portico of the court house at an early hour, to prevent the efforts of the court from entering being without precedence at the customary time of opening the doors, the judges retained to their quarters: About eleven o'clock at night, the Sheriff with the Attachment of the court, attended by an armed force, repaired to the court house. Being refused admittance, some of the party broke into the house, and committed several Trespasses. The people were inflamed to the highest degree, by this rash proceeding. The next day they assembled in large numbers, from all quarters. A coroner attended, and a jury of inquest brought in a verdict, that the man was murdered by the court party. Some of the officers were made prisoners, and confined in the gaol at Northampton in Massachusetts. But upon their application to the chief justice of that province, they were released from their confinement, and returned home. Highly animated by this event, the committees of a large body of the people met at Westminster, April 11th, 1775. Among other measures, they came to the following resolve; "That it is the duty of the inhabitants, wholly to renounce and annul the administration of the Governors of New-York, until such time as the lives and properties of the inhabitants may be secured by it." Or until such time as they can have opportunity to lay their grievances before his most gracious Majesty in council, together with a proper remonstrance against the unjustifiable conduct of that government, such an humble petition to be taken out of so oppressive a jurisdiction, and

either intended to have acted offensively against Canada, or to have prevented their going thither. By frustrating these designs, and greater objects, which seemed likely to have followed up, by the capture of Quebec, and the importance of the citadel, that place, Britain and America.

The enterprising spirit of Arnold soon found a new object for its employment. At the commencement of hostilities with Britain, some of the principal officers of the American navies, considered it would be a matter of much importance to secure the British fort on Lake Champlain, before they should receive any intelligence of the American war. Arnold was sent from Connecticut, to engage the people on the New Hampshire grants, upon this expedition. He immediately undertook the business, and in a few days raised a body of troops, which he judged sufficient for that purpose, and marched with Arnold, or with part of his troops, and took Ticonderoga and Crown Point, on May 10th, the 12th following, Montgomery, at the head of St. John's, then venturing to land on the island of Montreal with a few men, he was taken a prisoner by the British, and suffered many hardships and deaths, during a long and severe imprisonment.

Warren.

A Proceedings of the Committee of Observation, April 21, 1775.

Warner, who had also been prescribed by the governor of the county, entered with much spirit into the American cause. His attention, courage, and firmness, recommended him much to the officers, under which he served. Congress wished to have a regiment compleated of the settlers upon the grants. The command of it was given to Warner, and on every occasion he approved a brave, judicious, and excellent officer.

Amidst all the difficulties the people had passed through, they had been without any form of civil government. The contest with Newyork had now ceased, and their attention was chiefly taken up with the affairs of the war. The methods, which they had managed their general concerns, viz. by meetings of towns and plantations, by committees, officers, and tenders, annually appointed, and submitted to, by general consent and approbation. The people had been unable to raise any considerable sums of money, by any taxation, but the affairs of the war had so multiplied emissions of paper currency, that this difficulty was in some measure removed. But the constant difficulty and embarrassment, of conducting their public affairs without the advantages of government, had given rise to combinations of a general nature, among several of the towns; and partial conventions had been holden at several times, and places, on each side of the mountains. But no general plan of combination and union, had taken place, nor does it seem, that the people at this period of their affairs, had entertained the idea of forming themselves into an independent state. But it had become a matter of general inquiry and conversation, What should be done? And what measures ought to be adopted for the public safety?—The situation of the inhabitants at this time, seems to have approached nearly to what has been called by some, a state of nature. A large number of people were

scattered

formed into a large body of militia, the freeholders elected, at a great distance from each other, without any form of government, any established laws, or civil officers, to whom such inferiority had formerly been, or afterwards by mutual agreement, to promote their common safety and interest. But they had not entertained the idea, of setting up an independant government, or formed any plan for their future proceedings, or regulation. They seem to have been waiting, for the result of a measure proposed to them, what was practicable and prudent. To obtain information, in the fall of the year 1775, some of the leading members went to Philadelphia, to procure the advice of Congress. They did not obtain any formal act or advice from that body, but upon their return dispersed a number of letters, signifying it as the opinion of several members of Congress, that the people should form a temporary allocation, and government by committees and conventions, as the circumstances of the people might require. Accordingly, on January 16, 1776, a convention met at Dorset, and drew up a petition to Congress. Their application they stiled, "The humble petition, address, and remonstrance of that part of America, being situate south of Connecticut river, commonly called and known by the name of the Newhampshire grants." They avow their readiness to bear a full proportion of the American war, their ability and zeal in the common cause, and willingness to be called upon for this purpose, whenever Congress should judge it necessary. But declare they are not willing to put themselves under the provincial government of Newyork, lest it should be afterwards construed to imply an acknowledgment of that authority. They conclude with requesting, that whenever the Congress should find it necessary to call for their services, they may not be called upon as inhabitants of Newyork,

[illegible] of [illegible] to the [illegible] [illegible]
[illegible] of [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible]

was, Whether for the future, they were to be conquered provinces, or free and independent states?

But while the declaration of Independence, clearly stated to the United Colonies, the ground on which they were to stand, it left the people on the New-hampshire grants, in a situation more uncertain and critical, than that, in which they had been before. Col. *Ethan* had obtained a commission from the crown, to be governor of Ticonderoga, Crown Point, and the adjacent country; but to what extent, was unknown. New-hampshire had renounced all political connexion with them. The controversy with New-york was reviving. The convention of that state had unanimously voted on August 2d, 1776, "That all quitrents formerly due to the king of Great-britain, are now due, and owing to this convention, or such future government as shall hereafter be established in this state." To submit to the claims of New-york, was to give up the whole of their property, and to reduce themselves to a state of dependence, and beggary. To oppose her claims and power, would probably bring on, not only a contest with New-york, but with the Congress also: And to continue without some form of government, was impossible.

A situation attended with so many difficulties, gave rise to a variety of opinions. Some were for attempting to return to New-hampshire: Others saw no other method of proceeding, but submission to New-york. The most resolute, were for assuming the powers of government, and hazarding all the consequences of such a measure. To ascertain what the prevailing opinion

* In the grants made by the governors of New-hampshire, the annual quitrents reserved to the crown on every hundred acres, were one shilling proclamation money, equal in value to nine pence sterling; in the grants made by the governors of New-york, these quitrents were raised to two shillings and six pence sterling.

opinion was, it was indeed necessary to call a general convention. This convention was called by circular letters from some of the most influential persons; it consisted of fifty one members, representing thirty five towns, and met at Dorset, July 24th, 1776. At this session the convention agreed to enter into an association among themselves, for the defence of the liberties of their country: But that they would not associate with either of the counties, or with the provincial Congress of Newyork; and that any of the inhabitants of the Newhampshire grants, who should enter into such an association, should be deemed enemies to the common cause.

The sentiments of the people were now very generally tending towards a total separation from Newyork. On September the 25th, the convention met again, and resolved, without any dissension, viz. "to take suitable measures as soon as may be, to declare the Newhampshire grants a free and separate district." And that "no law or laws, direction or directions from the state of Newyork, should be accepted."

In January 1777, a general convention of representatives from the towns on both sides of the mountains met at Westminster. The sentiments of their constituents were now well known: And after a very serious debate and consultation, the convention concluded that there was no other way of safety left, but to form themselves into a new state, and assume all the powers of government. Accordingly, on January 16th, having resolved upon this measure, they made and published the following declaration:

"This convention, whose members are duly chosen by the free voice of their constituents, in the several towns on the Newhampshire grants, in public meeting assembled, in our own names, and in behalf of our constituents, Do hereby proclaim, and publicly declare, that the district of territory comprehending,

bending, and usually known by the name and description of the New-hampshire grants, of right ought to be, and is hereby declared forever hereafter to be considered as a free and independent jurisdiction, or state; to be forever hereafter called, known, and distinguished by the name of *Nemasoneffient*, alias *Vermont*. And that the inhabitants that at present, or that may hereafter become resident within said territory, shall be entitled to the same privileges, immunities, and franchisements which are, or that may at any time hereafter be allowed, to the inhabitants of any of the free and independent states of America: And that such privileges and immunities shall be regulated in a bill of rights, and by a form of government, to be established at the next session of this convention."*

Having taken this decisive step, they drew up a declaration and petition to Congress, in which they announced to that body, as the grand representative of the United States, that they had made and published a declaration, "that they would at all times thereafter, consider themselves as a free and independent state, capable of regulating their own internal police, in all, and every respect whatsoever, and that the people in the said described district, had the sole exclusive right of governing themselves, in such manner and form, as they, in their wisdom, should choose, not repugnant to any resolves of the honorable the continental Congress:—And that they were at all times ready, in conjunction with their brethren in the United States, to contribute their full proportion towards the maintaining the present just war, against the fleets and armies of Great-britain."† They petition Congress that their declaration might be received, that the district therein described, might be ranked among the free and independent

* Records of the Convention.
† A Copy, attested by J. Fay, clerk.

pendent American States; and delegates therefrom, be admitted to a seat in Congress. This declaration and petition was signed, and presented to Congress in behalf of the inhabitants, by four of the most respectable members of the convention; *Jonas Fay*, *Thomas Chittenden*, *Heman Allen*, and *Reuben Jones*.

No measure was ever more necessary, or more happily chosen, than this. Newhampshire had wholly rejected them. They never had submitted to the government of Newyork, but steadfastly opposed her authority. By the dissolution of all connexion with the crown of Greatbritain, they concluded they were no longer subject to the claims of Newyork, founded on the arbitrary decisions of that crown. The period was now come, when as they expressed it, they were reduced to a state of nature. Some form of government, must be adopted. They had the same right to assume the powers of government, that the Congress had. The step seemed to be absolutely necessary, for the immediate safety and protection of the people. And now was the time, when the powers of government could be assumed, with the greatest safety and advantage. To be irresolute or timid, was to lose an opportunity, which might never return. And whatever opposition might be made to their measures, they could meet it with greater force, when they had declared themselves a free and independent state, and knew by what authority they acted. Every part of the United States, was at that period, contending against oppression; and every consideration that could justify the proceedings of Congress, was a reason, why the people of Vermont, should take that opportunity, effectually to guard against their former sufferings. Happily for themselves, and for the state, they adopted that firm and temperate policy, which alone was adequate to the object.

CHAP. X.

Proceedings of Newyork. Reſolves of Congreſs. Controverſy with Newhampſhire. Claims of Newhampſhire, Newyork, and Maſſachuſetts. Appointment of Commiſſioners, to confer with the Inhabitants. Interpoſition of Congreſs. Conduct of Vermont. Meaſures purſued by Congreſs. Further Claims of Vermont. Proceedings and Views of the Britiſh Generals, and Miniſters. Reſolutions of Congreſs. Proceedings of Vermont, Newyork, and Newhampſhire. Advice of General Waſhington. Proceedings of Vermont. Votes of Congreſs. Remarks on the Deſign, and Effect of thoſe Votes.

THE conduct of Vermont in declaring their independence, was viewed by the adjacent ſtates, in very different lights. Newhampſhire appeared willing to admit, and acknowledge it. In Maſſachuſetts and Connecticut, the meaſure was rather applauded, than condemned. But to Newyork, the conduct of the people in attempting to form a new ſtate, appeared as a dangerous revival of their former oppoſition and rebellion to lawful authority.

The committee of ſafety for that ſtate, were then ſitting. Apprehenſive of the conſequences, they immediately took up the matter; and by their direction, the preſident of the Newyork convention, on January 30th, 1777, gave this information to Congreſs, "I am directed by the committee of ſafety of

Newyork,

Newyork, to inform Congreſs, "that by the arts and influence of certain deſigning men, a part of this ſtate hath been prevailed on to revolt, and diſavow the authority of its legiſlature.—The various evidences and informations we have received would lead us to believe that perſons of great influence in ſome of our ſiſter ſtates, have foſtered and fomented theſe diviſions.—But as theſe informations tend to accuſe ſome members of your honourable body, of being concerned in this ſcheme, decency obliges us to ſuſpend our belief.—The convention are ſorry to obſerve, that by conferring a commiſſion upon Col. Warner, with authority to name the officers of a regiment, to be raiſed independently of the legiſlature of this ſtate, and within that part of it, which hath lately declared an independance upon it, Congreſs hath given but too much weight to the inſinuations of thoſe, who pretend that your honourable body are determined to ſupport theſe inſurgents; eſpecially, as this Col. Warner, hath been conſtantly and invariably oppoſed to the legiſlature of this ſtate, and hath been, on that very account, proclaimed an outlaw by the late government thereof.—It is abſolutely neceſſary to recall the commiſſions given to Col. Warner, and the officers under him, as nothing elſe will do juſtice to us, and convince thoſe deluded people, that Congreſs have not been prevailed on to aſſiſt in diſmembering a ſtate, which of all others, has ſuffered the moſt in the common cauſe." To perſuade Congreſs to engage in this cauſe, another application was made to that body, on March the 1ſt: In this the convention of Newyork repreſent, that they depend upon the juſtice of that honourable houſe, to adopt every wiſe and

* Atteſted copy of a letter from the Honourable A. Ten Broek, preſident of the convention of Newyork, dated Jan. 28, 1777.

and salutary expedient, to suppress the mischiefs which must ensue to that state and to the general confederacy, from the unjust and pernicious projects of such of the inhabitants of Newyork, as merely from selfish and interested motives, have fomented the dangerous insurrection: That Congress might be assured that the spirit of defection, notwithstanding all the arts and violence of the seducers, was by no means general: That the county of Gloucester, and a very great part of Cumberland, and Charlotte counties, continued steadfast in their allegiance to the government of Newyork; and that there was not the least probability, that Col. Warner could raise such a number of men, as would be an object of public concern.*

The proceedings of Vermont had now assumed a regular form, and become an object of general attention. In April, a paper was printed at Philadelphia, subscribed Thomas Young, and addressed to the inhabitants of Vermont: To this address was prefixed a resolution, which Congress had passed May 15, 1776, recommending to the respective assemblies and conventions of the United Colonies, where no government sufficient to the exigencies of their affairs had been already established, to adopt such government, as in the opinion of the representatives of the people, should best conduce to the happiness and safety of their constituents. In the address to the inhabitants of Vermont, were these paragraphs: "I have taken the minds of several leading members, in the honourable the continental Congress, and can assure you, that you have nothing to do, but to send attested copies of the recommendation to take up government to every township in your district, and invite all your freeholders and inhabitants to meet in their respective townships, and choose

* Letter from A. Ten Broeck of March 1, 1777.

chooſe members for a general convention, to meet at an early day, to chooſe delegates for the general Congreſs, a committee of ſafety, and to form a conſtitution for your ſtate. Your friends here tell me, that ſome are in doubt, whether delegates from your diſtrict, would be admitted into Congreſs. I tell you to organize fairly, and make the experiment, and I will enſure your ſucceſs, at the riſk of my reputation as a man of honour or common ſenſe. Indeed they can by no means refuſe you! You have as good a right to chooſe how you will be governed, and by whom, as they had."*

Publications and meaſures thus avowing the cauſe, and deſigned to eſtabliſh the independence of Vermont, were beheld by Newyork, with great indignation and concern. On May the 28th, the council of ſafety for that ſtate, made a third attempt to engage the attention of Congreſs: By their direction, their preſident wrote to that body, that a report prevailed and daily gained credit, that the revolters were privately countenanced in their deſigns, by certain members of Congreſs; that they eſteemed it their duty to give them ſuch information, that by proper reſolutions on the ſubject, Congreſs might ceaſe to be injured, by imputations ſo diſgraceful and diſhonourable. "However unwilling we may be to entertain ſuſpicions ſo diſreſpectful to any member of Congreſs, yet the truth is, that no inconſiderable numbers of the people of this ſtate, do believe the report to be well founded."†

To bring Congreſs to ſome deciſion upon the matter, on June 2d, one of the delegates of Newyork laid before that body, the printed letter and publication of Thomas Young. Congreſs took up the

* Printed letter to the inhabitants of Vermont, April 11, 1777, by T. Young.

† Pierre Van Cortlandt's letter to Congreſs, May 28, 1777.

the matter, and ordered the printed paper, the letters which had been received from the convention of Newyork, and from the inhabitants of the New-hampshire grants, to be referred to a committee of the whole; and after several adjournments, on June 30th, passed the following resolves:

"*Resolved*, That Congress is composed of delegates chosen by, and representing the communities respectively inhabiting the territories of Newhampshire, Massachusetts Bay, Rhodeisland and Providence Plantations, Connecticut, Newyork, Newjersey, Pennsylvania, Delaware, Maryland, Virginia, Northcarolina, Southcarolina, and Georgia, as they respectively stood at the time of its first institution; that it was instituted for the purpose of securing and defending the communities aforesaid, against the usurpations, oppressions, and hostile invasions of Greatbritain; and therefore it cannot be intended that Congress by any of its proceedings would do, or recommend, or countenance, any thing injurious to the rights and jurisdiction of the several communities, which it represents.

"*Resolved*, That the independent government attempted to be established by the people, styling themselves inhabitants of the Newhampshire grants, can derive no countenance, or justification, from the act of Congress declaring the United Colonies to be independent of the crown of Greatbritain; nor from any other act, or resolution of Congress.

"*Resolved*, That the petition of Jonas Fay, Thomas Chittenden, Heman Allen, and Reuben Jones, in the name and behalf of the people, styling themselves as aforesaid, praying that 'their declaration that they would consider themselves as a free and independent state, may be received; that the district in the said petition described, may be ranked among the free and independent states; and that delegates

therefrom

therefrom may be admitted to seats in Congress, be dismissed.

"*Resolved*, That Congress by raising and officering the regiment, commanded by Col. Warner, never meant to give any encouragement to the claims of the people aforesaid, to be considered as an independent state; but that the reason which induced Congress to form that corps, was, that many officers of different states, who had served in Canada, and alleged that they could soon raise a regiment, but were then unprovided for, might be reinstated in the service of the United States."*

Having recited the paragraphs in the letter from Thomas Young, which have been quoted, they next resolve, "That the contents of the said paragraphs are derogatory to the honour of Congress, are a gross misrepresentation of the resolution of Congress therein referred to, and tend to deceive and mislead the people to whom they are addressed."

These resolves were favourable to the government of Newyork: From their spirit and style, and the manner in which the business was introduced, the people of Vermont concluded, they were drawn up under the influence of that state; and that their independence must be supported, with the same firmness and spirit, with which it had been declared: And they served only to confirm the resolution of a people, who with all the hardihood of antiquity, were well acquainted with the nature and origin of their own rights.

During this period, no controversy had arisen with Newhampshire. That state had gone farther than any other, to admit and acknowledge the independence of Vermont.—On the 6th of July, 1777, the American army stationed at Tyconderoga, was forced to abandon that important post to the formi-

dable

* Journal of Congress, June, 1777, p. 238, 239, 260.

dable army commanded by General Burgoyne. The people in moſt of the towns on the weſt ſide of the mountains, were obliged to abandon their habitations, with circumſtances of great diſtreſs and confuſion.

The convention of Vermont was then ſitting, at Windſor. Their committee wrote in the moſt preſſing terms,* to the committee of ſafety at Exeter in Newhampſhire, for aſſiſtance; informing them at the ſame time, if none ſhould be afforded, they muſt immediately retire into the Newengland ſtates, for ſupport and ſafety. The aſſembly of Newhampſhire was immediately called together: They put a large body of their militia under the command of General Stark, and gave him orders to "repair to Charleſtown on Connecticut river; there to conſult with a committee of the Newhampſhire grants, reſpecting his future operations, and the ſupply of his men with proviſions; to take the command of the militia, and march into the grants; to act in conjunction with the troops of that new ſtate, or any other of the ſtates, or of the United States." † About the ſame time, ‡ Mr. *Weare* preſident of Newhampſhire, in behalf of the council and aſſembly, wrote to *Ira Allen*, ſecretary of the ſtate of Vermont, announcing the aſſiſtance they were ſending; the ſtyle and expreſſions of his letter were addreſſed to Vermont, as a free and ſovereign, but a new ſtate. From theſe events it was not doubted in Vermont, but that Newhampſhire had already acknowledged her independence; and would uſe her influence, to have it acknowledged by Congreſs.

But the conduct of ſome of the inhabitants of Newhampſhire, ſoon occaſioned a controverſy of a very

* July 5.
† Belknap's Hiſtory of Newhampſhire, Vol. II. 413.
‡ July 19.

very ſerious nature, with that ſtate. Newhampſhire was originally granted as a province, to John Maſon; and was circumſcribed by a line, drawn at the diſtance of ſixty miles from the ſea. All the lands to the weſtward of that line, were properly royal grants, and had been annexed to Newhampſhire, by force of royal commiſſions. The inhabitants on the eaſtern ſide of Connecticut river, well knew what the original bounds of Newhampſhire were; and they were deſirous to join the inhabitants on the weſt ſide of the river, in ſetting up a new ſtate.—With theſe views, it was not a difficult thing, to find reaſons to juſtify their proceedings. They urged, that the province of Newhampſhire could not originally extend further, than ſixty miles from the ſea coaſt: That the additional towns were annexed to that ſtate, ſolely by virtue of the royal commiſſions: That theſe commiſſions could have no force, or operate no longer, than while the power of the crown ſubſiſted: That as all royal authority was done away, the obligations which had annexed them to the province of Newhampſhire, was done away with it: And that it now belonged to the people to determine, what ſtate they would join, and what government they would be under.* Theſe ideas were propagated with much ſucceſs, in the towns adjoining Connecticut river; conventions were holden, and in the courſe of a few months,† a petition was preſented in the name of ſixteen towns in Newhampſhire, announcing "that they were not connected with any ſtate, with reſpect to their internal police," and requeſting the ſtate of Vermont, to receive them into an union and confederation with them.

* Obſervations on the right of juriſdiction of Newhampſhire grants: Printed 1778. Public defence of the right of Newhampſhire grants, &c. Printed 1779.

† March 12, 1778.

The assembly of Vermont was perplexed with this application. Most of the members from the west side of the mountains, viewed it as a dangerous measure; and the majority of the assembly, appeared to be against receiving any of the towns from Newhampshire. The towns in Vermont which adjoined to Connecticut river, were generally in favour of receiving the towns from Newhampshire; and went so far as to propose withdrawing from their connexion with Vermont, and setting up another state. There was no method to preserve their own union, but to refer the question to the decision of the people: And the party in favour of the Newhampshire proposals, were extremely diligent and active, in securing a majority of the members, against the next meeting of the assembly. When the assembly met, it was represented to them, that the inhabitants of the towns which had applied for a union with Vermont, were almost unanimous in their votes, and that Newhampshire, as a state, would not object against said towns joining with Vermont.* A vote was carried in favour of their union and confederation:† And the assembly of Vermont resolved further, That any other towns on the east side of Connecticut river, might also be admitted into the union, on producing a vote of the majority of the inhabitants, or on their sending a representative to the assembly of Vermont.—Having thus effected their purposes, the sixteen towns announced to the government of Newhampshire, that they had withdrawn from their jurisdiction, and wished to have a divisional line established, and a friendly correspondence kept up.‡

These

* Allen's vindication of the conduct of the general assembly, &c. page 23.
† June 11, 1778.
‡ June 25.

These proceedings were founded upon principles, which might introduce endless contentions and divisions, among the United States; and they justly proved greatly alarming to Newhampshire.

Meshech Weare, Esq. was at that time president of that state, a gentleman of great wisdom and virtue. In the name of the assembly he wrote to Mr. *Chittenden* governor of Vermont,* claiming the sixteen towns as part of the state of Newhampshire. His claim was founded on the known boundaries of that state, before the revolution; on their sending delegates to the convention, in 1775; on their applying to the assembly of Newhampshire, for arms and ammunition; on their receiving commissions from the government, and having always acted as a part of it. He gave information at the same time, that the minority in those towns, had claimed protection from that state; which the assembly of Newhampshire, viewed themselves as bound on every consideration, to afford. And he urged the governor of Vermont, to exert his influence with their assembly, to dissolve so irregular and dangerous a connexion.—That he might avail himself of the highest authority in America, Mr. *Weare* wrote also to the delegates of that state in Congress,† urging them to take advice, and procure the interposition of Congress; intimating his apprehensions, that this would be the only method, in which the controversy could be settled, without the effusion of blood, as all attempts for reconciliation had been in vain.

Nor were the governor and council of Vermont without their difficulties, in the management of these affairs. To guide the movements of a people, irritated by a long series of injuries, and now too much elated by success, was a critical and difficult business. Aware of the applications that would be made to Congress,

* August 18. † August 19.

Congreſs, in September they ſent Col. Ethan Allen, as their advocate to that body; and to procure information, in what light their proceedings were viewed at Philadelphia. Upon his return he made report,* that Congreſs was unanimouſly oppoſed to their forming any connexions with the people of Newhampſhire; And that if thoſe proceedings were diſannulled, none of the members of Congreſs, except the delegates from Newyork, would oppoſe their independence.

The next aſſembly of Vermont met in October, at Windſor. Repreſentatives from ten of the ſix teen towns, took their ſeats in the aſſembly. A queſtion was moved, "Whether the towns on the eaſt ſide of Connecticut river, which had been admitted into an union with Vermont, ſhould be erected into a county by themſelves?" The vote paſſed in the negative. Finding by this, and ſome other votes, that the aſſembly declined to do any thing more, to extend their juriſdiction to the eaſt of Connecticut river, the members from thoſe towns withdrew from the aſſembly, and were followed by fifteen of the repreſentatives from ſome of the towns in Vermont, adjoining to the river, with the deputy governor, and two aſſiſtants. The aſſembly of Vermont conſiſted of but ſixty members, two thirds of which were neceſſary to make a houſe, to do buſineſs: And this was juſt the number that was left, when the ſeceding members had withdrawn. The remaining members went on with the public buſineſs, and continued their ſeſſion, until the buſineſs of it was finiſhed: But he referred the matter to their conſtituents, to inſtruct them how to proceed with regard to the union with Newhampſhire, at their next ſeſſion.†—The members who had withdrawn themſelves

* October 10.

† Allen's Vindication, p. 14. 16. 18. 44.

themſelves from the aſſembly, formed into a convention, and gave an invitation to the towns on both ſides of Connecticut river, to unite, and to meet with them, in a convention at Corniſh, in Newhampſhire, Dec. 9, 1778.—The intereſts and views which produced theſe proceedings, were pretty well underſtood, and proved greatly injurious to Vermont. The people on both ſides of Connecticut river, wiſhed to form a government, the center and ſeat of which, ſhould be upon the river. The people on the weſt ſide of the mountains, were averſe to this plan, and to any connexion with Newhampſhire.

On December the 9th, the convention which had been called, met at Corniſh, one of the ſixteen towns. They agreed to unite, without any regard to the limits which had been aſſigned to Newhampſhire, in 1764; and to make the following propoſals to that government. Either to agree with them on a diviſional line, or to ſubmit the diſpute to Congreſs, or to arbitrators mutually choſen. If neither of theſe propoſals ſhould be accepted, and they could agree with Newhampſhire upon a plan of government, they reſolved further, "We will conſent that the whole of the grants connect with Newhampſhire, and become with them one entire ſtate, as it was limited and bounded, before the ſettling of the ſaid line in 1764." Until one of theſe propoſals ſhould be complied with, they reſolved to truſt in providence, and defend themſelves.*—There were but eight towns from Vermont, which were repreſented in this convention; and ſome of them declined to act in making any overtures to Newhampſhire, to extend their juriſdiction over the ſtate of Vermont. But the proceedings of the convention, ſerved to diſcover to the whole body of the people, what had been the views of the leading men, in propoſing the union of

* Allen's Vindication, p. 32, 33.

of the fixteen towns from Newhampſhire: It was now manifeſt, that their whole aim, had been to form a government, the center and ſeat of which, ſhould be upon Connecticut river. This would be effected, either by connecting a conſiderable part of Newhampſhire with Vermont; or by breaking up the government of Vermont, and connecting the whole of it, with Newhampſhire. The one or the other of theſe meaſures they were earneſt to effect; and either of them would probably have formed a ſtate, the metropolis of which, muſt have been upon the river which divides the two ſtates.—To get rid of a connexion, which had occaſioned ſo much trouble and danger, the aſſembly of Vermont, on Feb. 12, 1779, voted to diſſolve the union, which had ſubſiſted between them, and the towns in Newhampſhire; and immediately communicated their reſolves to that government.* Encouraged by theſe diviſions, the aſſembly of Newhampſhire was perſuaded by ſome of her leading members, to claim the whole tract of country, which belonged to her before the royal determination in 1764. Accordingly that ſtate put into Congreſs, a claim to the whole territory of Vermont. Newyork took the ſame ſtep, and put in her claim to the whole of the lands. As Newhampſhire had not the leaſt pretence, upon any principle whatever, to make ſuch a claim it was not doubted in Vermont, but that intrigues had been formed by the leading men in thoſe two ſtates, to divide Vermont between them. The range of mountains, which runs through the ſtate, would afford a natural line, for ſuch a diviſion: And this meaſure would unite the two ſtates of Newhampſhire and Newyork; and put an end to all future controverſy, with the people of Vermont; either reſpecting their limits, the validity of their grants, or the powers of government which

* 1779, June 24.

which they had assumed. And if these two states could be united, there was a fair prospect that the rest would leave them to settle the affairs of Vermont, which began to bear a very serious aspect, and might prove troublesome to Congress. The other states had not as yet concerned themselves, about their controversies; but Massachusetts now interposed. Whether aiming to disappoint the views of New-hampshire and Newyork, or in earnest to secure a part of the controverted lands, that state also put in a claim to a large part of Vermont. And her claim had a much better appearance, than that of New-hampshire: For although the line between Massachusetts and Newhampshire might be esteemed to be settled, yet the line between Massachusetts and Newyork had never been determined.

While these controversies had been carried on with Newhampshire, the debate with Newyork had not at all subsided. In a letter of July 7th, 1778, Mr. *Clinton*, governor of Newyork, wrote to one of his friends in Vermont, that he "would still as on a former occasion, earnestly recommend a firm and prudent resistance to the draughting of men, raising taxes, and the exercise of every act of government, under the ideal Vermont state; and in such towns, where our friends are sufficiently powerful for the purpose, I would advise the entering into association, for the mutual defence of their persons and estates against this usurpation." * In a letter of July 8th, he warmly urged Congress to come to some decision on their controversy with Vermont; blamed the inhabitants for the violence of their proceedings, affirmed that it would soon bring on a civil war, and that all the grievances of the people of Vermont had suffered, arose from the former government of Newyork, and not from the present. †

In

* Copy of a letter from governor *Clinton*, to Pelatiah Fitch, Esq.
† Attested copy.

In 1779, the controverſy with Newyork bore a more hoſtile appearance. There were ſeveral perſons in the ſouthweſt part of the ſtate, then called the county of Cumberland by Newyork, who were attached to the authority of that ſtate, and oppoſed the government of Vermont. To ſome of them, governor *Clinton* had given commiſſions. They aſſerted that they had a regiment of about five hundred men; and that a conſiderable part of the county, was alſo oppoſed to the authority of Vermont. The government of Vermont found it neceſſary to put an end to theſe hoſtile aſſociations; and Col. *Ethan Allen* was directed to raiſe a part of the militia, for that purpoſe. Upon this intelligence, a Colonel bearing a commiſſion under the government of Newyork, wrote to governor *Clinton* for his advice and direction, ſuggeſting the neceſſity of having the militia of Albany held in readineſs to attack any armed force, that ſhould gather with that deſign; and that it would be an eaſy thing to get intelligence, by employing the enemies of Vermont, in their own towns, to give information. In anſwer to this application, the governor of Newyork recommended in general, firmneſs and prudence, and in no inſtance to acknowledge the authority of Vermont, unleſs where there was no alternative left between ſubmiſſion and inevitable ruin: He aſſured them, at the ſame time, that if any attempt was made by Vermont to reduce them by force of arms, he would inſtantly iſſue his orders to the militia, who were properly equipped, and who would be led againſt the enemies of the ſtate, wherever they might happen to be.†

Alarmed with theſe proſpects, Mr. *Clinton* wrote to the preſident of Congreſs, May the 18th, that matters

* Patterſon's letter to Governor Clinton, of May 3, 1779; and Minot's petition of May 4, 1779.

† Clinton's letter to S. Minot, of May, 14, 1779.

matters were fast approaching to a very serious crisis, which nothing but the immediate interposition of Congress, could possibly prevent; that by daily expected he should be obliged to order out a force, for the defence of those who adhered to Newyork; that the wisdom of Congress would suggest to them, what would be the consequence of submitting the controversy (especially while justice, not the decision of the sword, but what justice, the faith of government, the peace and safety of society, would not permit them) to continue any longer passive spectators of the violence committed on their fellow citizens." These letters, and sundry other papers relating to the disputes with Newhampshire, were laid before Congress, May 29th, 1779, and were referred to a committee of the whole. On June 1st, Congress resolved, "that a committee be appointed to repair to the inhabitants of a certain district, known by the name of the Newhampshire grants, and inquire into the reasons why they refuse to continue citizens of the respective states, which heretofore exercised jurisdiction over the said district. And that they take every prudent measure to promote an amicable settlement of all differences, and prevent divisions and animosities, so prejudicial to the United States." †

While the governor of Newyork was taking these measures with the party that adhered to him in Vermont, and with Congress, *Allen* marched with an armed force, and made prisoners of the Colonel, and militia officers, who were acting under the authority of Newyork. Complaint was immediately made to governor *Clinton*, with an earnest request, that he would take the most speedy and effectual measures for their relief. ‡ On June the 7th, Mr.

* Clinton's letter to Congress, of May 18, 1779.

† Journal of Congress, June 1, 1779, p. 297.

‡ S. Minot's letter to governor Clinton, of May 23, 1779.

States wrote again to Congress, informing them what had happened, the [illegible] and particularly of the appointment of [illegible] to confer with the [illegible] journey, might be [illegible] New-York, that the [illegible] tions of Congress under consideration, the 16th, Congress resolved, that the officers who had been thus released of their liberty, ought to be immediately liberated; and that their committee, who were appointed to confer with the inhabitants, should be directed to make inquiry into the matter, and things contained in Governor Clinton's letter; and that all further proceedings be postponed, until they should report.*

Five commissioners were appointed to repair to Vermont: Of these but two, Dr. Witherspoon, and Mr. Atle, attended. These gentlemen repaired to Bennington in June, made many inquiries, and had several conferences with the friends of Vermont, and with others who were in the interest of New-York. They proposed several questions to the governor of Vermont, to which he returned written answers. Their aim seems to have been to bring about a reconciliation between the claims. Upon their return they made a report to Congress, July 13th; but which evidently denoted, that no part of the business on which they were sent, had been effected.†

Four different claims were now before Congress, to the same tract of country, and the controversy had become so intricate, and warm, that very serious consequences were justly to be feared. It became necessary for Congress to interpose, and as all [illegible]

* Journal of Congress, June 16, 1779, p. 255, 260.

† Account of the proceedings of Mr. Witherspoon, and Mr. Atle.

[illegible] Congress, meeting at [illegible], resolved, passed the following, Resolved unanimously, That it be, and hereby is [illegible] recommended, to the states of New-Hampshire, Massachusetts Bay, and New-York, forthwith to pass laws, properly authorizing Congress, to hear and determine all differences between them, relative to their respective boundaries.—Resolved unanimously, That Congress will on the 1st day of February next, proceed without delay, to hear and examine into the disputes and differences relative to jurisdiction aforesaid, between the said three states respectively, or such of them as shall pass the laws aforementioned on the one part, and the people of the district aforesaid, who claim to be a separate jurisdiction on the other, and after a full and fair hearing, will decide and determine the same according to equity.—Resolved unanimously, That it is the duty of the people of the district aforesaid, who deny the jurisdiction of all the aforenamed states, to abstain in the mean time, from exercising any power over any of the inhabitants of the said district, who profess themselves to be citizens of, or to owe allegiance to any or either of the said states, but that none of the towns, either on the east or west side of Connecticut river, be considered as included within the said district, but such as have hitherto actually joined in denying the jurisdiction of either of said states, and have assumed a separate jurisdiction, which they call the state of Vermont.—And further, That in the opinion of Congress, the said three states aforenamed, ought in the mean time to suspend executing their laws over any of the inhabitants of said district, except such of them, as shall profess allegiance to, and confess the jurisdiction of the same respectively.—

Resolved

Resolved unanimously, That in the opinion of Congress, no unappropriated lands or other property, claimed or may be adjudged forfeited or confiscated by said district, ought until the final decision of Congress in the premises, to be granted or sold, or any

From these resolutions it was apparent, that the views of Congress were to evade any determination, and to pacify and quiet all parties for the present, and that it was of much more importance, in their view, to preserve the union and affections of the other states, than that of Vermont. At a time when the fate of America depended upon preserving the union of the states, and all might have been lost by the disaffection of any one, perhaps this evasive policy was the best. It seems to have quieted all parties, but Vermont. The states of New-hampshire, and Newyork, passed the acts which Congress had called for. Massachusetts did not, and probably with a view to prevent the district of Vermont from being sacrificed by either, or both of the other states.

It was impossible that Vermont should comply with the resolves of Congress. To have four separate jurisdictions existing at the same time in the same territory, as the resolutions recommended, would at any time have been absurd and impolitic, least of all was it to be admitted or attempted, after the people had declared themselves to be a free and independent state, assumed the powers of government, and exercised them in all cases, and in every part of the State. They had already formed their constitution, enacted a code of laws, erected courts of justice, and fully exercised all the powers of government. The plan of four separate jurisdictions, which Congress proposed, was incompatible with any state of society; and the more dangerous, as Newyork was constantly aiming to break up the government

* Journal of Congress, September 24, 1779.

parliament of Vermont, by granting commissions to their adherents, encouraging internecine and promoting disaffection in persons, in every part of the territory; and at the same time denied their title to their lands, and all the public acts of the state.

Nothing remained for Vermont in this situation, but to take a decisive part, and support with firmness and resolution, that independence which her representatives had declared by the voice of the people. Her rulers did not prove deficient in resolution. Well acquainted with their own rights and interests, they determined not to sacrifice them, either to the intrigues of the adjacent states, or to the policy of Congress. The governor and council published an appeal to the candid and impartial world, in which they declare that "they could not view themselves as holden either in the light of God or man, to submit to the execution of a plan, which they had reason to believe was commenced by neighbouring states: That the liberties and privileges of the state of Vermont, by said resolutions, are to be suspended upon the arbitrament and final determination of Congress, when in their opinion they were things too sacred ever to be arbitrated upon at all, and what they were bound to defend, at every risk: That the Congress of the United States had no right to intermeddle in the internal police, and government of Vermont: That the state existed independent of any of the thirteen United States, and was not accountable to them, or to their representatives, for liberty, the gift of the beneficent Creator: That the state of Vermont was not represented in Congress, and could not submit to resolutions passed without their consent, or even knowledge, and which put every thing that was valuable to

* Drawn up by Stephen R. Bradley, Esq; published Dec. 30, 1779.

other [illegible]

[illegible] expence of the war with Great-Britain, from its first commencement, whenever they were admitted into the union with the other States. But they were silent to all sense, and honour, that after four years war with Britain, in which they had expended so much blood and treasure, that they should now give up every thing worth fighting for, the right of making their own laws, and choosing the several forms of government, to the arbitrament and determination of any man, or body of men under heaven.

It seems to have been the desire and expectation of all parties, that Congress should take up the matter, as they had proposed, on February 1, 1780. Vermont had now acquired such numbers, popularity, and power, that much was to be expected from having her claims thoroughly understood, and considered by the United States. But instead of being decided, the matter was not taken up at all: on the 1st of February, and on March 21st, it was ordered by Congress that the matter be postponed, nine States, exclusive of those who were parties in the question, not being represented.* On June 26, Congress resolved that the proceedings of the people of the New-Hampshire grants were highly unwarrantable, and subversive of the peace and welfare of the United States; and that they be strongly required to forbear from any acts of authority, civil or military, over those of the people, who professed allegiance to

other

* Journal of Congress, March 21, 1780, p. 44, 49.

other states: And on June the 6th, they resolved to defer the matter to the second Tuesday in September. Upon the receipt of these letters, the General Assembly of Vermont, by the advice of their council, replied, that "however Congress, from various principles, they were conducted, by the people of Vermont as being in their measures, injurious to the natural rights which they had, by liberty and independence, as well as incompatible with the principles by which Congress pretended their own rights of independence, and had a natural and direct tendency to endanger the liberties of America, that they were willing to submit the matter in dispute between them and the authority of Congress to impartial judges, provided that as they were not considered as the thirteenth United States, it was stipulated as it, they were at liberty to treat on a separate terms of cessation of hostilities with Great-Britain, without the approbation of any other man, or body of men; for, on proviso that neither Congress, nor the legislatures of those states which they represent, will buy out Vermont in her independence, but devote her to the usurped government of any other power, she will not, the most distant desire to continue hostilities with Great-Britain, and maintain an important frontier, for the benefit of the United States, and for no other reward than the ingrateful one, of being enslaved by them; but notwithstanding the usurpations and injustice of neighbouring governments towards Vermont, and the late resolutions of Congress, from a principle of virtue, and close attachment to the cause of liberty, as well as from a thorough examination of their own policy, they were induced once more to offer union with the United States of America, of which Congress were the legal representative body." †

In

* Journal of Congress, March 21, 1780, p. 81, 82, 84.
† Gov. Chittenden's letter to Congress, of July 4th, 1780.

[illegible] September the agents [illegible] [illegible] [illegible]

declared their readiness to [illegible] the expences of the [illegible] and that whenever it should be called, and they informed that one of the delegates of the legislature of the independent state should be sent as [illegible] and [illegible] they [illegible] to observe, to determine the dispute by virtue of the authority given them, by the act or acts of the state of which, which made but one party; they expected [illegible] that if the matter in dispute, they stood ready to appear to God and the world, who must be accountable for the awful consequences that may ensue.* Having heard the evidence on the part of New-hampshire, on September 27th, Congress resolved that the further consideration of the subject should be postponed.†

At no time has the spirit of parties run higher than at this period. During the whole of this trial it does not appear that either of the contending parties had any idea of conciliatory measures; all seem to have been determined to effect their purposes. And although Vermont was not admitted to appear as one of the parties before Congress, her expectations and prospects had at no time been so high. She well understood the ground on which she stood; and it was generally believed in the other states, that some of her leading men would incline to join with Canada, and make the best terms they could with the British government, if no alternative was held out to them, but submission to the government of New-

York.

* Remonstrance of Ira Allen and Stephen R. Bradley to Congress, September 22, 1780.

† Journal of Congress, September 13, 19, 20, 21, 1780, p. 196—197.

mittee

[illegible] all the lands [illegible] the place where they [illegible] exercise jurisdiction [illegible] tion for the time being.

Thus, while Newhampshire and Newyork were extending their claims over the whole territory of Vermont, Vermont adopted the same policy, and in conformity to the petition of the inhabitants, extended her claim over a large part of the territory of both these states.

Great success attended this policy: Not only the fifteen towns in Newhampshire which had formerly joined, but those in Vermont which had been disaffected upon the dissolution of the former union, and those that had been attached to Newyork, immediately joined in the measure. Most of the towns in the adjacent counties of Cheshire and Grafton, in Newhampshire, declared for the union; and at a session of the assembly of Vermont in April, thirty five towns in the western parts of Newhampshire, were represented. The adjacent settlements in Newyork generally embraced the same measure, and several petitions were received from their inhabitants at this session of the assembly, requesting the legislature of Vermont to exercise jurisdiction over them without any further delay. A committee was appointed by the assembly, to confer with a committee of those districts; and on May 14th, articles of union were agreed to, by the representatives of twelve districts in Newyork, and the committee from Vermont.

* Journal of the assembly of Vermont, this session.

The

The rise and rise of the Revolutionary in New-York was first announced in a letter from Col. Ethan Allen to Ethan Allen, a then junior Colonel in the American service. The latter was stated New-York. Major [illegible] was detached to Allen in the front at Arlington, in July, by a British soldier in the habit of an American farmer. In this letter Robinson began the business thus, "I am now undertaking a task which I hope you will entertain with the same good intention, that inclines me to make it. I have often heard that you and most of the inhabitants of Vermont are opposed to the wild and chimerical scheme of the Americans, in attempting to separate this continent from Great-Britain, and to establish an independent state of their own; and that you would willingly assist in uniting America again to Great-Britain, and restoring that happy constitution we have so wantonly and wonderfully destroyed. If I have been rightly informed, and these should be your sentiments and inclination, I beg you will communicate to me, without reserve, whatever proposals you would wish to make to the commander in chief, and I hereby promise that I will faithfully lay them before him, according to your directions, and flatter myself I can be in as good office as any person whatever. I can make no proposals to you, until I know your sentiments, but think upon your taking an active part, and embodying the inhabitants of Vermont in favour of the crown of England, to act as the commander in chief shall direct, that you may obtain a separate government under the king and constitution of England, and the men formed into regiments under such officers as you shall recommend, be on the same footing as all the provincial corps are.—If you should think proper to send a friend of your own, here, with proposals to the general, he shall be protected, and well treated here, and allowed to return whenever he pleases."

* Copy of Robinson's letter, by E. Allen.

[illegible] of the army [illegible] and [illegible] that his [illegible] in [illegible] in the cause of his country was known to all. Arnold in his letter to this [illegible] am confident that Congress will not dispute any [illegible] in the use of my country, though I do not hesitate to say, I am fully grounded in opinion that Vermont has an indubitable right to agree on terms of cessation of hostilities with Canada, in case provided the United States persist in rejecting her application for a union with them. For Vermont, of all people would be the most miserable, were she obliged to defend the independence of the United claiming States, and they, at the same time, at full liberty to overturn, and ruin the independence of Vermont. I am persuaded, when Congress consider the circumstances of this state, they will be much surprised that I have transmitted them the inclosed Letters, that I have kept them in custody so long; for I am absolutely determined to defend the independence of Vermont, as Congress are that of the United States, and rather than fail, will retire with brave Green Mountain Boys, into the fastnesses of the mountains, and wage war with the whole force of Britain and America."

Arnold took place in the spring of the year 1776, which furnished the British with an opportunity to make a similar attempt from Canada. A number of men had been made prisoners in a defeat which the British gave the Americans, in the month of May. Their friends applied to governor Chittenden to send a flag into Canada, to negotiate their release or exchange. The governor complied with their request, and in the month of July a flag was sent with a letter to the commanding officer in Canada. In the fall, the British came up the Champlain in great force: The commanding officer brought a very [illegible] favourable

[illegible] Mem. relative to the dispute between Congress, &c. 1776.

[illegible] Colonel Ira Allen, to Governor Chittenden's family, and sent a flag to Ethan Allen, with a brigadier-general's and commanding officer's commission, proposing a cessation of hostilities with Vermont, during a negotiation for the exchange of prisoners. Allen agreed to the proposal, upon condition that it should extend to the whole frontiers of New-York. The British officer appeared to be unwilling to treat with any part of America, but Vermont; but finally agreed to every thing, which Allen proposed.

Before the enemy retired into their winter quarters, Colonel Ira Allen, and Major Joseph Fay, were appointed by the governor of Vermont, commissioners to negotiate the proposed exchange of prisoners. They proceeded to treat with the British agents, Captain J. Sherwood and George Sayre, on this subject. The British agents availed themselves of this opportunity to explain their views, to make their proposals, and to offer to compromise an establishment for Vermont, from the royal authority, if it should be desired. The commissioners from Vermont treated the proposals with affability, and good humour; and though they avoided bringing any thing to a decision, the British concluded they were in a fair way to effect their purposes; and the campaign ended, without any further hostilities to Vermont.

The next year, the British entered upon the business, with high expectations of success; and it was the interest of Vermont, not to undeceive them. New-York had withdrawn their troops, from the post at Skeensborough; all the continental troops had been ordered out of the territory; and the adjacent states did not afford them any assistance. The people of Vermont were exposed to the whole force of the enemy in Canada, and had neither magazines, money, nor an army, to oppose to the enemy at the

northward, who were seven thousand strong. No way of safety remained for Vermont, but to endeavour to effect that by policy, which could not be done by power. The cabinet council concluded, that they were designedly forsaken by the continental force, to force them into a confederation with New-York; and that it was clearly their duty, to provide for the safety of the people, in the only way that remained, by managing the British attempts to corrupt them, to their own advantage.*

On May 1st, Colonel Ira Allen was sent to Canada, with a commission to negociate the exchange of prisoners. The British agents concluded, that the day of their complete success was at hand. They complied with every thing which Allen required, and urged incessantly to have Vermont declare itself a British province, with assurances, that every thing she could ask for should be granted by the British generals, and confirmed by the king, in the most ample manner. Colonel Allen was fully equal to the business, which had been entrusted to him; and both he, and his employers, were among the firmest friends to the independence of Vermont, and of America. With a singular talent at negociation, he suffered the British agents to deceive themselves with an idea of their own success, and completely effected his own views, in leading the enemy into an agreement, that no hostilities should be commenced against the state of Vermont.—In July, Major Joseph Fay was sent to the enemy on Lake Champlain, and completed an exchange of prisoners. And in September, Allen and Fay, had another conference with the British agents, which like the former, left the British in high expectations of making Vermont a British province, and procured to Vermont

* Governor Chittenden's letter to General Washington, of November 14th, 1780.

Vermont the fatal advantage, that the enemy would at all hostilities against her, and returned all her inhabitants, which had been taken prisoners.

On October 19th, 1781, Lord Cornwallis surrendered with his army to General Washington. When the news of this important event arrived, the general assembly of Vermont were sitting at Charlestown. The enemy had come up the lake with a large force, and were then at Tyconderoga. They had concluded, that their business was so far effected with Vermont, that they might make an open proclamation of their designs and offers. Their agents had accordingly brought with them, a number of printed proclamations, announcing the royal offers to the people of Vermont, and inviting them to unite, and become very happy, as a royal province, under the king's government. The British agents sent on their letters to Charlestown, announcing the measures they were pursuing, and proposing to publish and disperse their proclamations, immediately among the people. They were told in answer, that the news of Cornwallis's surrender, would render such a step extremely dangerous, and was the sure way to prevent all prospect of success; and that they must wait, until time should determine, what was practicable and prudent.—Mortified by the disaster of Cornwallis, but comforted with groundless expectations and hopes, they returned in a peaceable manner down the lake, and went into winter quarters, without having done any injury to Vermont, through the whole campaign.

In the winter of 1782, the enemy in Canada, were extremely impatient to know, what effect the surrender of Cornwallis had produced on the minds of the people of Vermont. In February and in April, the British agents wrote in the most pressing terms, for information. Their anxiety and views will best appear, from the style of their letters: The following

following extract is from a letter from one of the British agents, dated 28th February 1781, "may enquire to what point you intend the negotiation with his excellency General Haldimand for peace to tend, that knowing this, which having obtained, I earnestly request you to send me in the most candid, unreserved manner, the present willing disposition of the people, and leading men of your state, respecting our former negotiations, and what effect the late catastrophe of Lord Cornwallis, has on them.—Will it not be well to consider, the many chances and vicissitudes of war? However brilliant the last campaign may appear, the next may wear a very different aspect. Add to this, the great probability of your being reduced, by your haughty neighbours, elated by (what they call) a signal victory; and I hope you will see as I do, that it is more than ever your interest, to unite yourselves with those, who wish to make you a happy and free government. Will there be a proper time to send the proclamations? I repeat my request, that you will tell me, without reserve, what may be expected in future."

On the 22d of April, the British agents write in this style, "In confidence, we take this opportunity to acquaint you, by the authority of his Excellency General Haldimand, that he is still inclined to treat amicably with the people of Vermont; and that his generous and humane inclinations, are now seconded by much stronger powers from his Majesty, than he has hitherto enjoyed for that purpose.—We do in confidence, officially assure you, that every article proposed to you in his excellency's former offer, as well as the confirmation of the salt and woollens, in their utmost limit, will be amply and punctually complied with.—We hope, your answer may be such, as to unburden our anxious minds." Extremely fearful about the event, and desirous of

not

not receiving an [illegible] war on April [illegible] they [illegible] again, and carried their offers and pretensions to a greater extent. "His excellency has not lost sight of his first object, and I am happy to be able to inform you, that the general has fully received by way of Halifax, full powers from the king to establish [illegible] government, including the full extent of the bail and well united, with every privilege and immunity, formerly pertained to you, and he is likewise fully authorized, as well as discreetly inclined, to provide amply for [illegible], and to make [illegible] brigadier-general in the line, [illegible] field officers, with such other rewards, as your sincerity, and good services in bringing about the revolution, may in future merit. In short, the general is vested with full powers, to make such rewards, as he shall judge proper, to all those, who distinguish themselves, in promoting the happy union. And as his excellency has the greatest confidence in you, and [illegible], much will depend on your recommendations."

In July, Colonel Ira Allen was sent again into Canada, with a letter from the governor of Vermont, to General Haldimand, requesting the release of two officers, belonging to Vermont, who were then prisoners in Canada. The British agents were then extremely desirous, of bringing their negociations with Vermont, to an immediate decision. All the arts of negociation were employed, on the one hand, to persuade Vermont, to declare herself a British province; and, on the other, to avoid this step, without bringing on a renewal of hostilities. A secret treaty was offered, and much urged: And in the event, Haldimand agreed to continue the suspension of hostilities; and wrote a very friendly letter to Governor Chittenden, fully complying with his request of liberating the prisoners, and announcing his pacific disposition towards Vermont, in the strongest

cal

ral manner: you may not attempt, until further orders, to dispossess any of the settlers, who are now in possession of any lands, before complaint be made to the governor of Vermont, until such time as a boundary line shall be run between the two provinces, or some general event may make the contrary necessary. And you have my authority to promulgate in such manner as you shall think fit, this my intention to the people of the said district, that they may, without any apprehension, continue to encourage and promote the settlement and cultivation of that new country, to the interest and happiness of themselves, and their posterity."

With this year, the war, and the negociations, came to an end; leaving favourable impressions on the government of Canada, towards Vermont. The last letter the British agents wrote upon the business, was on March 25th, 1783; before the news of the peace was officially known, or fully believed in Canada. Their views and sentiments, at that period, were thus expressed, "I am commanded to acquaint you, that actuated from the beginning, by a sincere desire of serving you, and your people, as well as of promoting the royal cause, by reuniting you with the mother country, his excellency never lost an opportunity of representing every circumstance that could be advanced in your favour, to the king's ministers, in the hope of accomplishing a reconciliation.—His excellency will continue by such representations, to do all in his power, to serve you, but what effect it may have, at this late period, is very uncertain. While his excellency sincerely regrets the happy moment, which it is much to be feared cannot be recalled, of restoring to you the blessings of the British government, and views with concern the fatal consequences approaching, which he

[1] Haldimand's letter to Governor Chittenden, dated Quebec, 8th August, 1782.

he has so long, and so frequently modified, from your proclamation, he derives some satisfaction from a consciousness of not having omitted any circumstance, which could lead to your information, and adoption of the desired purpose. In the present uncertain state of affairs, uninformed as he is, accurately of what is doing, or perhaps done, in general accommodation, he does not think it, with the resolve shall be known, to give any opinion, which may influence you, perhaps to the prejudice of your interests, or that might interfere with the views of government. If the report now prevailing, has any foundation, a very short time will determine the fate of Vermont.—Should any thing favourable present, you may still depend on his excellency's utmost endeavours, for your salvation.

Thus terminated a controversy, which occasioned many and various conjectures, at the time when it was carried on. On the part of the British, it consisted of constant attempts and endeavours to persuade the leading men of Vermont, to renounce their allegiance to the states of America, and become a British province. On the part of the gentlemen of Vermont, the correspondence consisted of evasive, ambiguous, general answers and proposals, calculated, not to destroy the British hopes of reduction, but carefully avoiding any engagements or measures, that could be construed to be an act of the government: And it had for its object, a cessation of hostilities, at a time when the state of Vermont, deserted by the continent, and unable to defend herself, lay at the mercy of the enemy in Canada.

Eight persons only in Vermont, were in the secret of this correspondence. Each of them, well known to be among the most confirmed friends, to the American cause. They had avowed their sentiments, and embraced the cause of their country, from the beginning of the American war: They had suffered severely,

their power, to defend the independence of the [illegible] and [illegible] their enterprizing [illegible] to oblige even the British [illegible] and government, at that time, to the people of America, that it was with difficulty, the people of Vermont could be kept quiet, under the idea of a correspondence carried on with the British, though known to be disagreeable to their proceedings. Once or twice, there were small insurrections, to demand explanations. And nothing but the well known, and strong attachment of the gentlemen concerned, to the independence of Vermont and of America, could have preserved them from open violence, and destruction.

It may be doubted, how far such a measure was justifiable in that, or in any other state of things. On the one hand, it may be said, when the safety of all America was in question, and in much danger, nothing ought to have been done, to encourage the enemy, that they should be able to divide, and thus subdue the continent. On the other hand, it may be urged, that when thirty thousand people were deserted by the Congress, and become the objects of the intrigues and policy of the adjacent states, it was as justifiable and necessary for them, to provide for their safety, as it was for the rest of the continent.—If there was no other alternative for the people of Vermont, than to be divided, subdued, and delivered over to the power of their ancient enemies; their leaders will not be blamed, for taking necessary and adequate measures, to prevent such an evil. In such a situation, it was scarcely possible for the people of Vermont to believe, that they could be under any moral obligation, to sacrifice themselves, to procure independence for those, who by the act of their

representatives,

[redacted]

Not only the British generals, but so much was the British government deceived by their appearances, that the ministers flattered themselves, that they had nearly effected the defection of Vermont from the American cause, and drawn them over to the British interest. Lord George Germain was at that time minister of state, for the American department. A letter which he wrote to Sir Henry Clinton, commander of the British troops in Newyork, was intercepted and carried into Philadelphia. The letter was dated Whitehall, February 7, 1781. In which he wrote thus, "The return of the people of Vermont to their allegiance, is an event of the utmost importance to the King's affairs; and at this time if the French and Washington really meditate an irruption into Canada, may be considered as oppoling an unsurmountable bar to the attempt. General Hal-

whose

[illegible]

† Governor Chittenden's letter to General Washington, of Nov. 14, 1781.

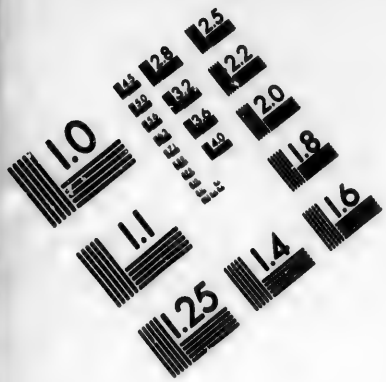
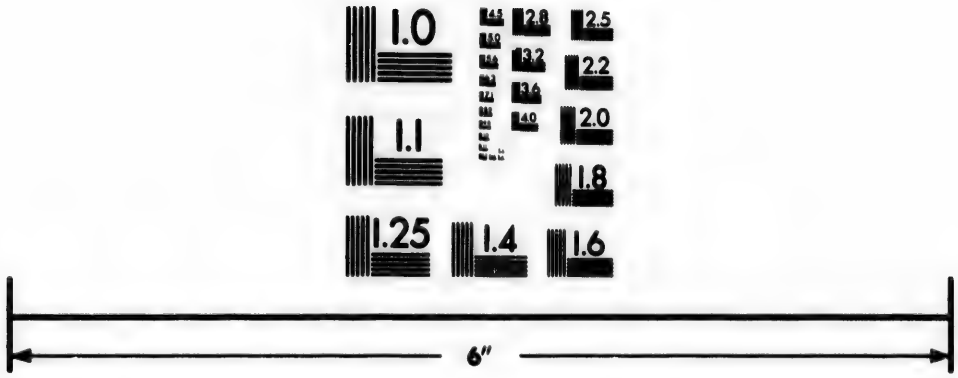
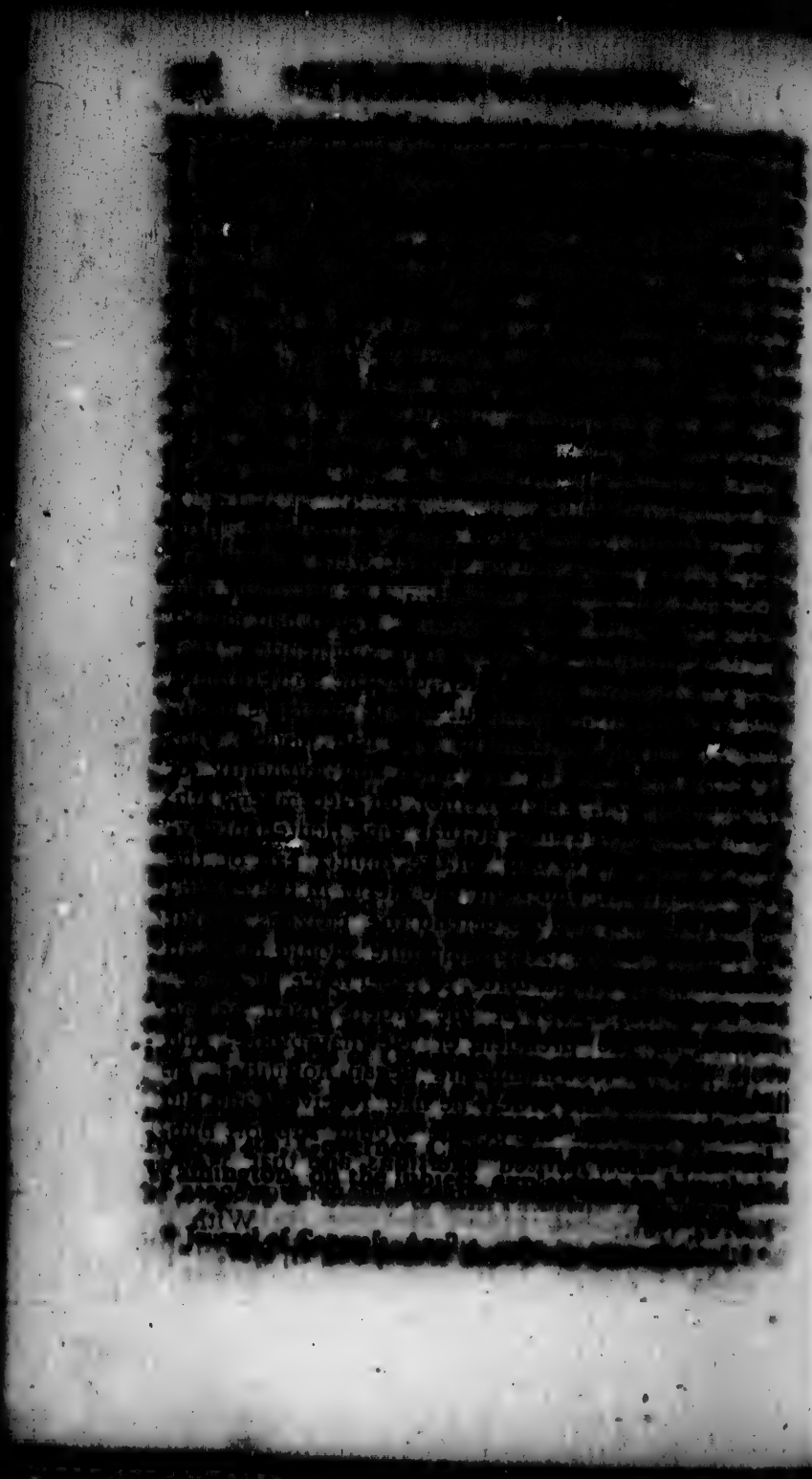


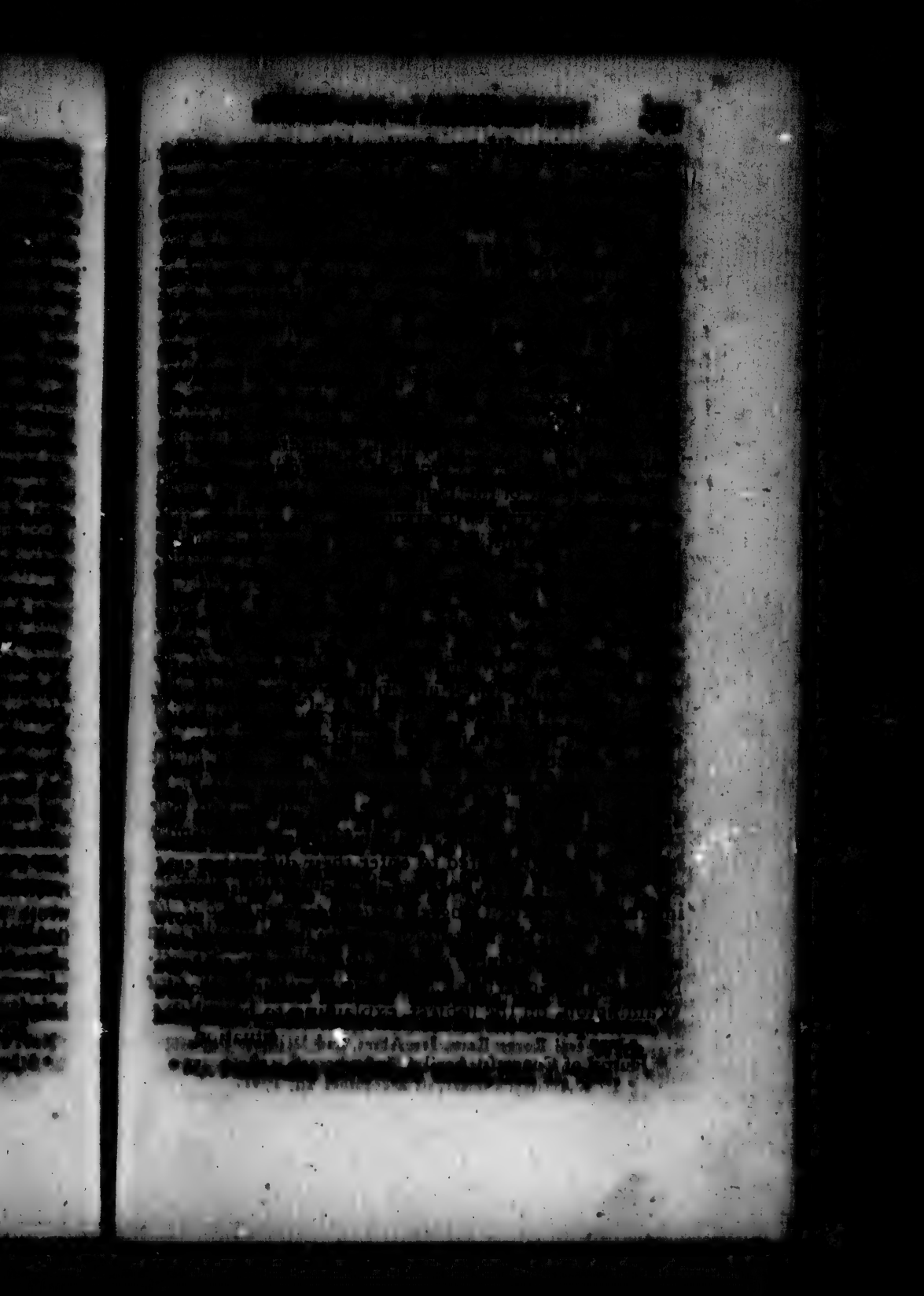
IMAGE EVALUATION TEST TARGET (MT-3)

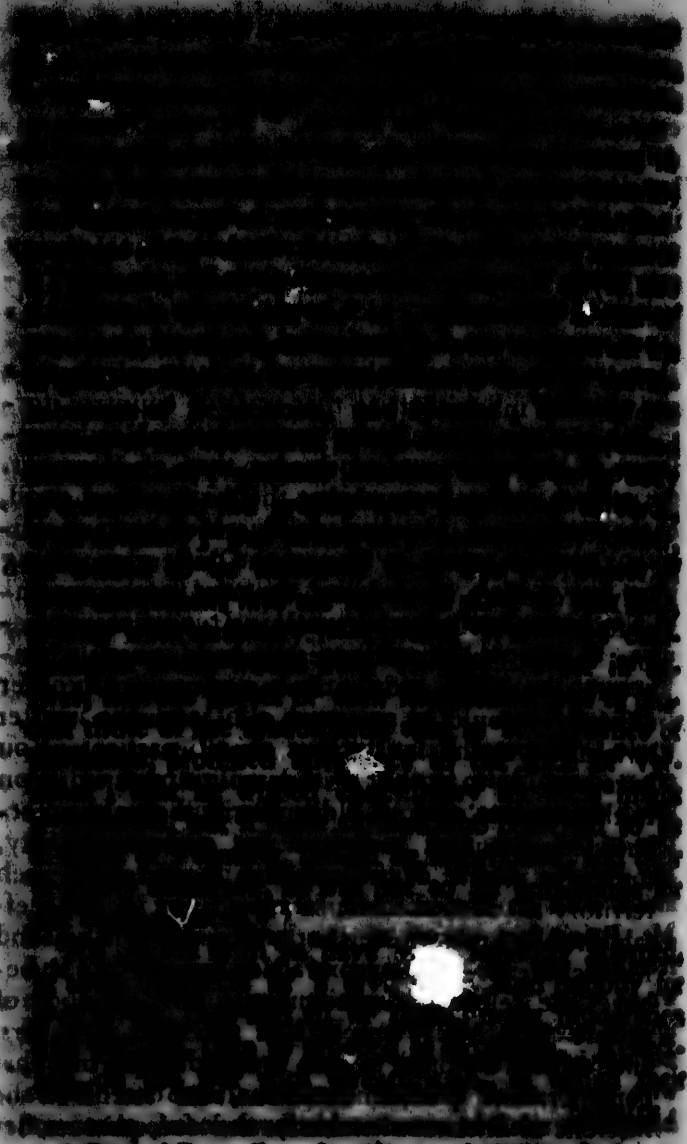


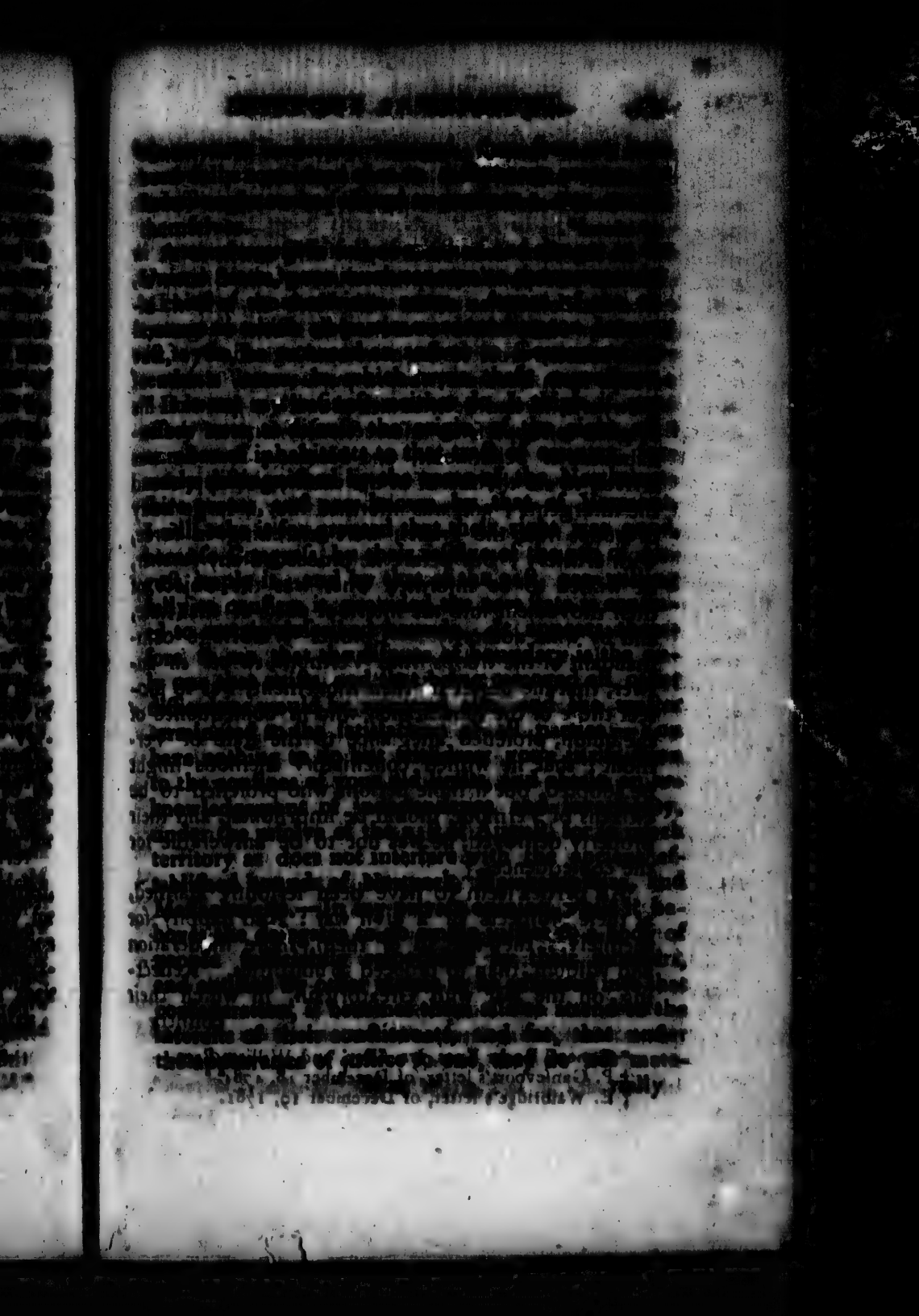
Photographic Sciences Corporation

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503









of Congress respecting this matter in the month of August last, being unwilling to submit to the tribunal of three commissioners, Congress by their resolutions of August last, in guaranteeing to the states of New-

york

York and Newhampshire respectively, all the territory

United States, do without delay or further order carry their resolutions into execution.—Be-

fore

From these votes it was apparent, that Congress

affairs of Vermont, stating

their agency, the agent received

letter to the president of Congress, informing

that Vermont, in consequence

dangers of her enemies, and

upon to comply with their requisitions, in the most

ample manner; that they were disappointed by the

unexpected delay of Congress in not admitting

that part of the report and plan of the committee

were adopted, this unfriendly measure, by

taking off a considerable part of her strength, in being

exposed as a frontier home to the ravages of

the enemy in Canada, and defiance of the aid of the

United States, which made them suspect, that no

reality, delay might not deprive them of the benefit

of the confederation; and that they should cease

to be officially acquainted when their standards

would be received.†

The proceedings of Congress ought to be treated

with all the respect which is due to government,

and with all the candour that is due to the imper-

fections of men. But when every reasonable allow-

ance

* Extract from the Journal of Congress, of April 29, 1780.

† April 29.

‡ Copy of the letter from the Hon. James Duane, Esq. Madi-

son, and Isaac Tichenor.

deavour

CHAP. XI.

Disturbances in Vermont. Resolutions of Congress. Remonstrances against the Proceedings of Congress. Peace with Great-Britain. Disinclination of Vermont to an Union with the Confederated States. New Federal Constitution. Proposals of Newyork. Settlement of the Controversy with that State. Admission of Vermont into the Federal Union. Political Effects of these Controversies.

IN the internal government of the state, Vermont had met with good success. The people were not fully united in the measure, when the powers of government were first assumed. Some were upon principle, attached to the government of Newyork. Those who were of a timid constitution, were fearful of the consequences. Those who wished to be free from the restraints of law and government, were clamorous about tyranny and oppression. Several of these sought protection from Newyork, avowed their allegiance to that state, and received commissions for civil and military offices, under that government; and were extremely active to oppose, and disturb the government of Vermont. Notwithstanding these attempts, the government of Vermont had been constantly gaining strength, not only among the people who were already settled in the territory, but by the accession of large numbers of people

people from other ſtates, but chiefly from Connecticut. The new ſettlers were almoſt univerſally, in favour of the proceedings of the government; and were adding much every year, to its ſtrength, numbers, and unanimity. With theſe proſpects the legiſlature judged that a general act of amneſty, in favour of thoſe who had been in oppoſition to government, might be of uſe to reconcile and quiet thoſe, who were now fully convinced, that nothing could be carried againſt the government, by force and oppoſition. Accordingly in February, 1781, the legiſlature paſſed a general act of amneſty, in favour of ſuch perſons within the ſtate, as had previouſly made oppoſition to its authority. Upon this judicious extenſion of lenity, all oppoſition to the internal government of Vermont, had ceaſed for more than a year; and all parties within the ſtate, ſeemed to acquieſce in the ſupport of government.

Congreſs had withdrawn all the continental troops, and left the inhabitants to take care of themſelves. In their expoſed ſituation, it became neceſſary to raiſe a body of troops, for the defence of the frontiers. The legiſlature ordered them to be raiſed from the ſeveral towns, in the ſtate, in proportion to the number of their inhabitants. There were ſome perſons in the ſoutheaſterly parts of the ſtate, who oppoſed the raiſing and payment of theſe men. The governor of Newyork by letters to them, and otherwiſe, interfered in the buſineſs. To ſome of theſe diſaffected perſons he gave civil and military commiſſions, and encouraged them with the proſpect, or promiſe of ſupport and protection.* Made inſolent by this proſpect of ſupport and diſtinction from the government of Newyork, ſome of theſe diſaffected perſons, had the effrontery to attempt to exerciſe the laws of Newyork, over the citizens of Vermont,

in

* Remonſtrance of the Council of Vermont, p. 11.

[illegible] authority [illegible] inhabitants [illegible] alienated [illegible] assembly [illegible] the [illegible] which [illegible] [illegible] [illegible]

by the state of New [illegible] having [illegible] and military to [illegible] in the [illegible] called Vermont; and that it be recommended to Congress, to negotiate the matter with the said state, in order to settle the controversy between them, in such manner as they shall judge most equitable and agreeable to the principles of justice, and the articles of the confederation; and that it be recommended to the state of New-York, and to the people exercising government in Vermont, to adhere to the resolutions of Congress of Sept. 24th, until a decision should be had upon their affairs. But after several attempts, a quorum could not be obtained in favour of these resolves, and the matter was adjourned.*

On December the 5th, the inhabitants of Vermont again applied to Congress, instead of proceeding to fulfil their own engagements to Vermont, was led by an ill judged policy, to embrace the cause of the claimants, and to pass resolutions full of censure and threatening, against the proceedings of the state. Their resolves were in this style:

"By the United States in Congress assembled, Dec. 5, 1780. Whereas it appears to Congress, by sundry ancient documents, that the people inhabiting the district of country on the west side of Connecticut river, commonly called the Newhampshire grants, and claiming to be an independent state, in contempt of the authority of Congress, and in direct violation of their resolutions of the 24th of September, 1779, and of the 7th of June, 1780, did, in the month of September last, proceed to exercise jurisdiction over the persons and properties of sundry inhabitants of the said district, professing themselves to be the subjects of, and to owe allegiance to the state of New-York, by means whereof divers of them have been condemned to banishment, not to return on pain of death

* Journal of Congress, Nov. 1, 1780.

death and confiscation of estate, and others have been fined in large sums, and otherwise deprived of property. Therefore, Resolved, That the acts and proceedings of the said people, being highly injurious to the interest of the United States, and dangerous to the confederacy, require the immediate and decided interposition of Congress, for the protection and relief of such as have suffered by them, and for preserving peace in the said district, until a decision shall be had on the controversy relative to the jurisdiction of the same.

That the people inhabiting the said district claiming to be independent, be, and they are hereby required without delay to make full and ample restitution to Timothy Church, Timothy Phelps, Henry Evans, William Shattuck, and such others, as have been condemned to banishment and confiscation of estates, or have otherwise been deprived of property, since the first day of September last, for the damages they have sustained by the acts and proceedings aforesaid, and that they be not molested in their persons or properties, on their return to their habitations in the said district.

That the United States will take effectual measures to enforce a compliance with the aforesaid resolutions, in case the same shall be refused by the people of the said district.

The people of Vermont were already prejudiced against the proceedings of Congress; these resolutions could not fail to impart a certain remarks of reverence and respect. The governor and council sent a spirited remonstrance to Congress against these resolutions.* In this remonstrance Congress was reminded of their solemn engagements to the state of Vermont, in their public acts of August 7th, and 21st, 1780, which had been fully complied with on the part of the state, but

* Jan. 9, 1782.

which Congress had refused or neglected to do. That they were told that by their new articles of confederation, they had no right to interfere or meddle with the internal police of any of the United States, and least of all with that of Vermont, over which they had not received any delegated power whatever. That Vermont had as good a right to independence as Congress; and as unwarrantable to pass resolutions prescribing measures to them, as Congress had to prescribe measures, directing them to receive the banished, and make restitution to criminals of the property which had been taken from them by due course of law, for their crimes against the laws and authority of the state. They were reminded that they were pursuing the same measures against Vermont, which Britain had used against the American Colonies, and which it had been found necessary to oppose at every risk and hazard. That their proceedings tended to make the liberty and natural rights of mankind a mere bubble, and the sport of state politicians: That it was of no importance to America to pull down arbitrary power in one form, that they might establish it in another: That the inhabitants of Vermont had lived in a state of independence from the first settlement of the country, and could not now submit to be enslaved out of it by the influence which Newyork, their old adversary, had in Congress: That they were in full possession of freedom, and would remain independent, notwithstanding all the power and artifice of Newyork. That they had no controversy with the United States, complexly considered, but were at all times ready and able to vindicate their rights and liberties against the usurpations of the state of Newyork.

With regard to that part of the resolves, which declared "the proceedings of Vermont to be derogatory to the authority of the United States, and dangerous

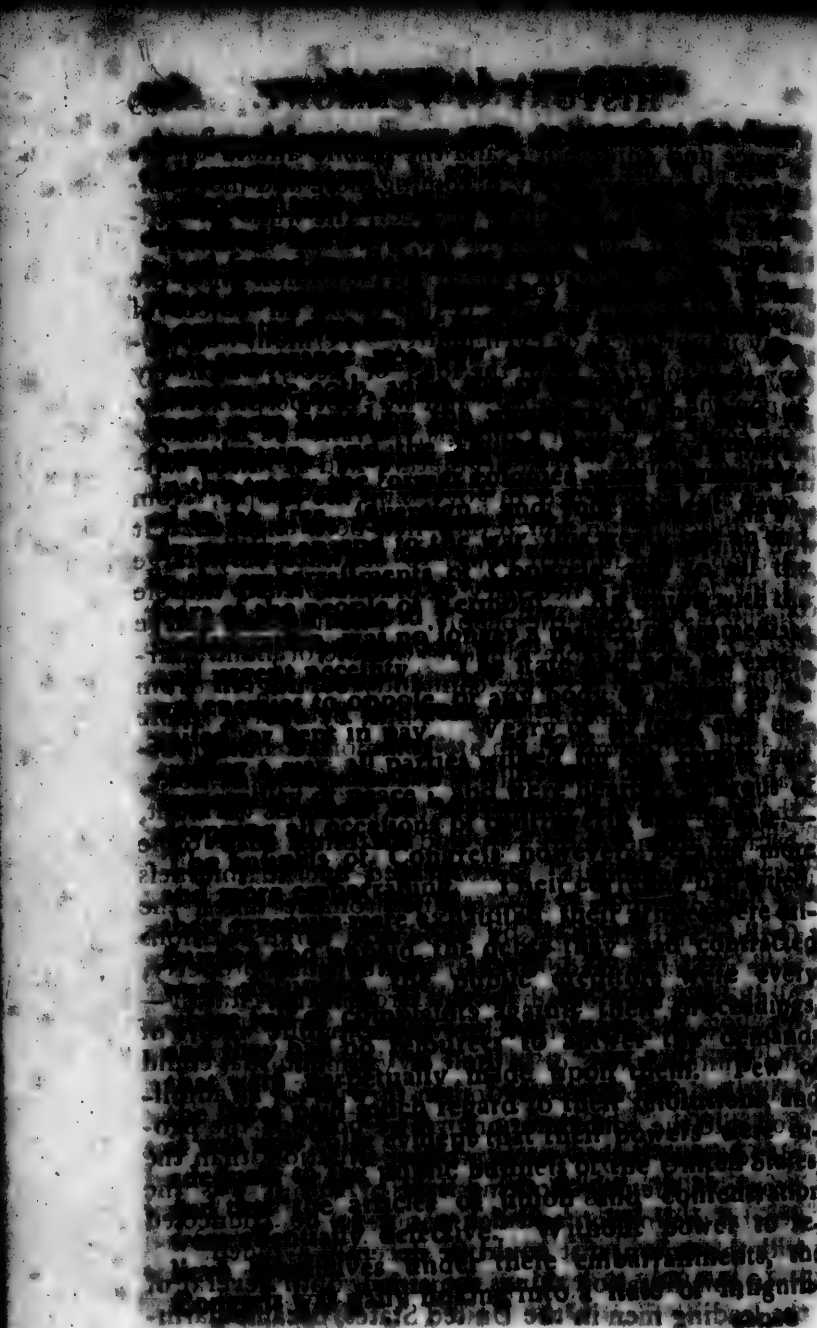
[illegible]

[illegible] would determine. But that it was the general opinion that a ratification of their confederation agreement would have had a more salutary tendency to promote peace, than their late resolutions.

As to the resolution that [illegible] make full and ample restitution [illegible] been confederated to banishment and confiscation of estate, they observe, that Congress have been so cautious in their resolutions relating [illegible] that if it [illegible] [illegible] of what [illegible] guarantee [illegible] their laws to certain described limits, giving a plea for the existence of the state of Vermont; this perhaps is the only thing Vermont have from them, as they are within their limits controlling the internal government of the state. Again they prescribe preliminaries of confederation, and when complied with on the part of the state, they unreasonably prescribe the ratification.

To that part of the resolves in which the state was threatened, that the United States would take effectual measures to enforce a compliance with their resolutions, in case they should be disobeyed by the people of said district, they return for answer, that the state would appeal to the justice of his excellency General Washington; and as the general and

most



federal government. Measures thus marked with wisdom

[illegible]

[redacted] of Vermont appointed commissioners on their

Congress, and negotiate the admission of that state into the union on the considered basis of [illegible]. The commissioners repaired to Philadelphia, and laid before the ninth [illegible] the [illegible] of the convention [illegible] of Vermont [illegible] the controversy between Vermont and [illegible] was considered. She was to take her [illegible] in Congress [illegible] the federal union was completed in every part of the United States of America.

The violence and duration of the contentions in which Vermont was thus engaged, created anxiety in the minds of many of her citizens, lest the [illegible] of society in that, and in the adjacent states, should [illegible] the [illegible] of their [illegible] with New York, there was no duly settled form of government in Vermont. The people [illegible] their business by the exertions of zeal and [illegible] by committees, leaders, and officers [illegible] and submitted to, by general consent. The [illegible] not to New York was one continued scene of [illegible] and the minds of the settlers were [illegible] by the most intolerable [illegible]. But a

general fear of the [illegible] prevented [illegible] from proceeding to [illegible]. But in the [illegible] was there any person [illegible] in 1775, during the [illegible] authority of New-York at [illegible] that through the body in the [illegible] gave such a general alarm, that [illegible] more cautious to avoid the extremes of [illegible]. In this stage of the controversy, [illegible] country were much prevented by the [illegible] which subsisted, and the violences they practised. In the latter part of the year, 1776, the [illegible] with Newhampshire bore a very [illegible] Chesterfield in that state, was one of the towns which joined with Vermont; but some of the inhabitants still adhered to the jurisdiction of Newhampshire. A constable under the authority of Vermont went to serve a writ upon one of the inhabitants of that town. His authority was [illegible] under the authority of Newhampshire, [illegible] ed. In the course of the [illegible] effect with [illegible] prisoned by the officer from [illegible] given by the government of [illegible] the *posse comitatus* and [illegible] ill by force. The [illegible] sent three agents to [illegible] promise the matter with the [illegible] humanity. One of these [illegible] By way of retaliation, he was [illegible] ed at Exeter. Alarmed with [illegible] ities, both governments were obliged to [illegible] to prevent those violent measures, which [illegible] to break out into a civil war. In 1778, the [illegible] ly of Vermont was invited to the city of New-York, on account of his political conduct in Vermont. The matter being laid before the general assembly of the state, they [illegible] that such [illegible]

in

ought

is

and

and ability, appeared in the federal government, that the people were willing to be brought into the American union.

Amidst the errors and evils which attended such controversies, they were found to produce some good effects. They served to excite and draw forth abilities and powers, which proved of great service to their country, when they came to be employed in the grand contest with Britain. They led the people to acquire just sentiments of the rights of men, and of the nature, importance and ends of government. At that period, every thing in America seemed to operate, to promote political knowledge. The principles of civil liberty, which were but imperfectly understood [illegible] the writing of books and pamphlets, occurred every moment in the news-papers, [illegible] the views and sentiments of [illegible] the subject of controversy, [illegible] the prevailing sentiments [illegible] among all the advocates [illegible]

CHAP.

CHAP. XII.

State of Society.—The Employments of the People; Agriculture, Manufactures, Hunting, Commerce, the Profits of Labor.

EMPLOYMENTS of the PEOPLE.

Agriculture.—The bulk of the people in Vermont are employed in agriculture. In a new country, where the settlements are recently made, agriculture puts on a very different appearance from that which it bears in the ancient and well cultivated settlements. There the business is, to cultivate and improve the farms which have already greatly improved. To increase the produce by the application of more labour and cultivation, and thus to derive a greater profit from the land. In a new settlement, the first business of the husbandman is to [illegible] the trees from the land, to sow [illegible] with grain, and to [illegible] communication between the scattered [illegible] and make the most of his labour. [illegible] of land [illegible] of his labour [illegible] of land. When he comes to [illegible] the [illegible] is considerable. The first crops [illegible] for all the expense he has been at in clearing up [illegible] fencing his land; and at the same time [illegible] the land, eight or ten times the original [illegible] In this way every stroke [illegible] in clearing up his land, receives a right degree in the grain which it produces, and adds at the same time a quantity of improved land to the farm. An acre of land which in its natural state, will [illegible] the

on behalf of one day's labour, is thrown out every year upon the cultivation; it will afterwards annually produce him from fifteen to twenty five bushels of wheat, or some other kind of product of equal value. In this way Asia owes its astonishing labours of a hundred centuries, and the greatest part of those ever yet taken place in agriculture. The labourer constantly receiving double the value of his labour, in the produce of his own industry, and the surplus much higher in proportion to the original addition of value, than in any other species of labour, the general addition of wealth must proceed much more rapidly. This double kind of reward with every benevolent and active principle, is annexed to the art of husbandry, when the earth is cultivated by a settlement in the uncultivated parts of America. And in two or three years he acquires a very comfortable and independent subsistence for a family, who lived from the earliest days that the child [illegible]

In every country, agriculture being the effectual [illegible] the fulness by which all other [illegible] supported, must be derived from the [illegible] culture is the source which alone is effectual, and of consequence the art which supports, supplies and [illegible] ought therefore to be deemed the primary, the fundamental, and the most precious art of all; which deserves the first and the greatest consideration, and encouragement in the world. Wealth from agriculture is permanent and durable, not subject to the uncertainties attending that which is derived from commerce, and not dependent upon the inclinations, the dispositions, or the regulations of other kingdoms and countries. The people that thus live by their own agriculture, are independent of other nations, and need not be affected by their wars, revolutions, or convulsions; but may always have the means of happiness and independence,

[illegible] while they have also
[illegible] from the [illegible] of mankind they
[illegible] every thing that [illegible] and [illegible]
[illegible] especially [illegible]
[illegible] great utility, and of high importance,
[illegible] society could not [illegible] without
[illegible] their importance and utility from the
[illegible] of man, and of society, and be not of
[illegible] to the wealth of nations.
[illegible], the divine, the [illegible],
[illegible] employments of
[illegible] But there is no one of
[illegible] any thing to the wealth and property
of the community. They must all derive their sup-
port, from the cultivation of the land. Of all arts
and professions then, agriculture ought to be esteem-
ed the most useful, and the most important. It is
the art which produceth, and nourisheth all the rest.
The other arts teach how to preserve the wealth, the
property, and the morals of men; to change them
[illegible] and to give [illegible] to their
[illegible]; but this provides food, raiment, and support
for them all.

In no way has the glory of nations been more ex-
panded, than by their attainments and discoveries in
science. The mathematicians have measured and
[illegible] the dimensions of the solar system. But the
[illegible] has in fact, enlarged the bounds of the
[illegible] creation. The philosophers have expand-
ed our minds with the ideas, and evidence, that the
other planets are inhabited; but the simple and na-
tural [illegible] has made the earth the place for more in-
habitants than it ever had before. And while the
astronomers are so justly celebrating the discoveries,
and the new planet of Herschel, all mankind should
know, that the simple [illegible] in the wilderness,

has

has found out a way to make our planet bear more

Those employments which are the most peculiar, and the most useful to man, seem to be the most nearly connected with morality and virtue. The cultivation appears to be most nearly allied to the purity of the heart. The man that is employed in raising the fruits, which nature has adapted to his use, seems to have but little to corrupt him. Among the many historics of corruption, there is not one that counts the body of the husbandmen among the corrupt, venal, and debauched communities. They must first be led to defert their employments, or they must be blinded and deceived, before they can be made the tools for politicians to corrupt, and manage. Their profession tends to render them an industrious, hardy, incorrupted, and honeft fet of men. It is never in the body of the husbandmen, but among the speculators, politicians, and leaders of mobs, that we look for a settled trade, and high attainments in venality and corruption.

MANUFACTURES. Next to agriculture, the chief source of employment is manufactures. These are chiefly of the *domestic* kind, designed to procure clothing for families. In no part of the United States does the farmer meet with more success in raising sheep. The climate agrees well with the breed of sheep that is spread over the territory. And the richness of the pastures, in new settlements, gives an extraordinary sweetness to the meat, and richness to the fleece. It is not uncommon for a sheep of two or three years old, to weigh one hundred and twenty pounds, and to afford three or four pounds of wool. And from the wool of their own raising the bigger part of the farmers manufacture the woolens, which are used in their families. In no places does flax succeed better, than on the new lands. The common produce from one acre, is

from

four hundred pounds. Every family raises a quantity of flax, and carries on a small manufacture of linen. These domestic manufactures are of the highest importance to this people. When the country shall be well settled, wool and flax will become two of its most capital productions. At present, there is not enough of either annually produced, to supply the inhabitants.

Great advantages may be derived to the state, from the *manufacture of iron*. Large quantities of iron ore are found in several of the towns, on the west side of the green mountains. Tinmouth, Rutland, Pittsford, and Shoreham, contain great quantities. The ore in these towns is of a reddish kind, mixed with earth and ore with yellow ore. It melts easily, and produces from one seventh to one fourth of iron. The iron is mostly of the coldshire kind, works easily, and makes excellent nails. The principal part of the ore that has hitherto been used in this state, has been brought from a mountain on the west side of Lake Champlain, about four miles north of Crown Point. This ore is of a black, heavy kind, mostly iron, mixed with a green flint stone. The iron in this ore appears in large grains, some of them nearly as large as a pea. These grains appear to be of pure iron. Some of this ore is so peculiarly rich, that when it is well managed, it will yield four sevenths of pure iron; but is exceeding hard to melt. When the ore is well worked, it produces the best iron for chains, horse shoes, nails, &c. and such matters as are drawn lengthways. When applied to nice work, which require plaiting widthways, it does not answer so good a purpose; though it is neither coldshire, nor redshire. The same kind of ore is found in many of the mountains, on the west side of the Lake, as far south as its waters extend.—A country thus abounding with the richest kind of iron ore, naturally invites the settlers of the iron manufactures.

manufactures. And they have already been erected several forges, and furnaces. In Bennington county there have been forges, in Rutland county fifteen, in Addison county four, and in Chittenden county two. In addition to which three furnaces are also erected, in the county of Rutland. From these works, large quantities of bar iron are annually produced. The manufacture of nails is already become common, and profitable, and every other branch of the iron manufacture, must soon be so.—These manufactures, like every thing else in the new settlements, are as yet in their infancy. But if we may judge from the plenty of the ore and bloopheels, with which an immense quantity of the best kind of iron ore may be procured, we must be apt to conclude that nature has designed this part of the United States, to be the seat of very flourishing manufactures of every thing that can be made of iron, or steel.

The manufacture of pot and pearl ashes, is still more extensive, and useful. The immense quantity of wood, with which the country is every where covered, may supply any quantity of ashes for this purpose: And the greatest economy takes place in collecting the ashes, made either for culinary fires, or those which are designed to burn up the wood where the inhabitants are clearing the lands. In almost every new settlement, one of the first attempts is to erect works for the pot and pearl ash manufacture: And there are probably as many works of this kind, as there are settled towns in the state. The business is every where well understood; and there is no better pot or pearl ashes made in any part of America, than that which is produced in Vermont. It has hitherto taken from four hundred and fifty to four hundred and eighty bushels of ashes to make one ton of pot ash. Constant attempts are now made, to find out a way of extracting more of

the

the salts from the ashes, than has been heretofore done by the common method of bleaching; and also to extract more salts from the ashes, which have been thrown aside as useless. Flattering prospects seem to have attended some chymical experiments of this kind; and improvements have been made in the method of constructing the works for the potash. But much further improvements are necessary, before these imperfect attempts can be of any very valuable use to the manufacturer.—The quantity of pot and pearl ashes, which is annually made in Vermont, cannot be exactly stated. From the best accounts I could procure, in the year 1791, the quantity might be estimated at about one thousand tons. Probably this may be near the truth. But whatever may be the quantity produced at present, it is rapidly increasing; and probably will for several years, bear some proportion to the increase of the inhabitants. As the mountains will not fail to supply wood for this manufacture, for centuries yet to come, it seems that Vermont will be one of the states, in which this manufacture will be attended with its greatest perfection and profit.

The manufacture of *maple sugar* is also an article of great importance to the state. Perhaps two thirds of the families are engaged in this business in the spring, and they make more sugar than is used among the people. Considerable quantities are carried to the shopkeepers; which always find a ready sale, and good pay.—The business is now carried on, under the greatest disadvantages. Without proper conveniences, instruments, or works; solely by the exertions of private families, in the woods, and without any other conveniences than one or two iron kettles, the largest of which will not hold more than four or five pailfulls. Under all these disadvantages, it is common for a family to make two or three hundred pounds of maple sugar, in three or four weeks.

This

This manufacture is capable of great improvement. The country abounds with an immense number of the sugar maple trees. The largest of these trees are five and an half or six feet in diameter, and will yield five gallons of sap in one day, and from twelve to fifteen pounds of sugar, during the season. The younger and smaller trees afford sap of nearly a full greater proportion. Were the workmen furnished with proper apparatus and works, to collect and boil the juice, the quantity of sugar might be increased, during the time of making of it, in almost any proportion. And it might become an article of much importance in the commerce of the country.—I have never tasted any better liquor, than what has been made from the maple, when it has been properly refined; it has a peculiarly rich, salubrious, and pleasant taste. But it is generally made under so many unfavourable circumstances, that it appears for the most part, rough, coarse, and dirty, and frequently tainted, smoaky, or greasy, when it is first made.—In one circumstance only, does nature seem to have set bounds to this manufacture, and that is with respect to time. It is only during four or five weeks in the spring, that the juice can be collected. While the trees are frozen at night and thawed in the day, the sap runs plentifully: But as soon as the buds come on, the sap ceases to flow in such a manner, as that it can any longer be collected.—We cannot determine with much accuracy what quantity of this sugar is annually made in the state. In the town of Cavendish, in the spring of the year 1794, the quantity made by eighty three families, was fourteen thousand and eighty pounds. If the families in the other towns manufacture in the same proportion, there must be above one thousand tons annually made in Vermont.

Several *distilleries* have of late been erected in the state. The objects of them have made such pernicious liquors,

[illegible] as can be shipped from this country, [illegible] the large quantities of timber, &c. used [illegible] are raised in the country, [illegible] probable that [illegible] will [illegible] [illegible] kinds of grain [illegible] [illegible] [illegible]

are brought into the state principally rum, wines, brandy, and fine Cheese, linens and woolens, and the various articles of cheap clothing; Tea, coffee, chocolate, and all the articles necessary for building, which are not yet produced in the country. The exports are grain of all kinds, but most, and pails; Pot and pearl ashes; beef, pork, live cattle, horses, lumber, potashy, some flax, and maple sugar. The amount of the settlement of an infant country, cannot be very accurately ascertained; nor have we any way to determine, what quantity of goods are annually brought into the state, or to what value the remittances annually amount. The trade itself has been of great advantage in promoting the settlement of the country, but the carriage of the articles, being chiefly by land, and through long and bad roads, has been attended with great expence, and has much prevented the raising of wheat, and other kinds of grain. The natural channels into which the trade of Vermont will evolve itself, will be the waters running into Connecticut river, and through Lake Champlain, down the rivers of Hudson, and St. Lawrence. As vigorous attempts are now making, to render all these waters better suited to the purpose of navigation, the time cannot be far distant, when commerce shall be more easily carried on, become much increased, and be attended with much greater advantages to the state.

In any of these employments, the laborer has the prospect of acquiring not only a very comfortable living, but sufficient property to maintain a family. The price of labour will always bear a proportion to the profits it will produce, and to the demand which there is for it. In a new country every one that can perform a day's work, will find employment in any part of the country. In agriculture, the laborer can procure seventy dollars a year for his work, equal in value to one hundred and seven-

ty bushels of wheat. In the dull season of the year, the common price of a day's labour is half a dollar; in winter not more than half this sum. All kinds of labour are in the most proportion to that of agriculture.—Of these wages it will take twenty dollars, to procure comfortable clothing; the remainder the labourer is able to reserve for other purposes. Thus by labouring for another for two or three years, the labourer becomes independent, and works afterwards upon his own land or stock.

The writers upon political economy in Europe, are constantly mentioning the great advantages which accrue to trade and commerce, from an extreme cheapness of labour. The beneficial effects that would arise from it in America, would be no compensation for the disadvantages that would attend it. It would not be any advantage to the country, to carry on any branch of business, which would not support itself, and pay well for the labour. Least of all would it be of any public benefit, to have the profits of the labour of many, centre in the hands of a few wealthy men. This would reduce the body of the people to poverty, dependence, and venality; and introduce all that endless confusion of laws for the support of the poor, which has perplexed all the wealthy parts of Europe, for more than a century. Those laws, with their perpetual alterations, plainly denote that the difficulty does not admit any remedy from the ordinary courts of law.—In every country, in which the state of society is such, that the labourers have the prospect and the hope of acquiring property, that body of men are as active, enterprising, and economical, as any other order in the state. Take from them, under any pretence, the proper profits of labour, and all prospect and hope of acquiring cash and property by it, and the European consequences will follow: The poor will everywhere abound, the wealthy must maintain them, and

both

both will be dissatisfied. Speculators will be perpetually proposing new laws, and the more the laws are multiplied, the worse will be the condition of the poor, and the greater will be the expence of the rich. This will be the unavoidable consequence, when the wealth of a nation has passed into the hands of a few men? Or when the body of the workmen, instead of labouring upon their own property, continue to serve under a master.

CHAP.

CHAP. XIII.

State of Society.—*Customs and Manners.—Education, early Marriages, Affinity, Equality, Economy, and Hospitality of the People.*

THE customs and manners of nations are derived from defence, situation, employment, and all those regulations which have an influence upon the state of the people; and they serve better than other circumstances to ascertain the character of nations, and to denote the state of society at any given period in their history.—The customs and manners of the people of Vermont, are principally derived from the people of New-England, from whom they are descended: But in a few particulars they have received a direction, from the state of society which takes place among the settlers in a new country.

—EDUCATION.—Among the customs which are universal among the people, in all parts of the state, one that seems worthy of remark, is, the attention that is paid to the education of children. The aim of the parent, is not so much to have his children acquainted with the liberal arts and sciences; but to have them all taught to read with ease and propriety, to write in plain and legible hand; and to have them acquainted with the rules of arithmetic, so far as shall be necessary to carry on any of the most common and necessary occupations of life. All the children are trained up to this kind of knowledge: They

are

are accustomed from their earliest years to read the Holy Scriptures, the periodical publications, newspapers, and political pamphlets; to form some general acquaintance with the laws of their country, the proceedings of the courts of justice, of the general assembly of the state, and of the Congress, &c. Such a kind of education is common and universal in every part of the state: And nothing would be more dishonourable to the parents, or to the children, than to be without it. One of the first things the new settlers attend to, is to procure a schoolmaster to instruct their children in the arts of reading, writing, and arithmetic: And where they are not able to procure or to hire an instructor, the parents attend to it themselves. No greater misfortune could attend a child, than to arrive at manhood unable to read, write, and keep small accounts. He is viewed unmeet for the common business of the towns and plantations, and in a state greatly inferiour to his neighbours. Every consideration joins to prevent so degraded and mortifying a state, by giving to every one the customary education and advantages. This custom was derived from the people of Newengland, and has acquired greater force in the new settlements; where the people are apprehensive their children will have less advantages, and of consequence not appear equal to the children in the older towns. No custom was ever better adapted to private, or public good. Such kind of education and knowledge, is of more advantage to mankind, than all the speculations, disputes, and distinctions, that metaphysics, logic, and scholastic theology, have ever produced. In the plain common good sense, promoted by the one, virtue, utility, freedom, and public happiness, have their foundations. In the useless speculations produced by the other, common sense is lost, folly becomes refined, and the useful branches of knowledge are darkened, and forgot.

EARLY

EARLY MARRIAGES.—Another cuſtom, which every thing tends to introduce in a new country, is early marriage. Trained up to a regular induſtry and economy the young people grow up to maturity, in all the vigour of health, and bloom of natural beauty. Not enervated by idleneſs, weakened by luxury, or corrupted by debauchery, the inclinations of nature are directed towards their proper objects, at an early period; and aſſume the direction which nature and ſociety deſigned they ſhould have. The eaſe with which a family may be maintained, and the wiſhes of parents to ſee their children ſettled in the way of virtue, reputation, and felicity, are circumſtances, which alſo ſtrongly invite to an early ſettlement in life. The virtuous affections are not corrupted nor retarded by the pride of families, the ambition of oſtentation, or the idle notions of uſeleſs and dangerous diſtinctions, under the name of honour and titles. Neither parents nor children have any other proſpects, than what are founded upon induſtry, economy, and virtue.—Where every circumſtance thus concurs to promote early marriages, the practice becomes univerſal, and it generally takes place, as ſoon as the laws of ſociety ſuppoſe the young people of ſufficient age and diſcretion to tranſact the buſineſs of life.—It is not neceſſary to enumerate the many advantages, that ariſe from this cuſtom of early marriages. They comprehend all that ſociety can receive from this ſource; from the preſervation, and increaſe of the human race. Every thing uſeful and beneficial to man, ſeems to be connected with obedience to the laws of his nature: And where the ſtate of ſociety coincides with the laws of nature, the inclinations, the duties, and the happineſs of individuals reſolve themſelves into cuſtoms and habits favourable, in the higheſt degree, to ſociety. In no caſe is this more apparent, than in the cuſtoms of nations reſpecting marriage. When

wealth,

wealth, or the imaginary honour of families, is the great object, marriage becomes a matter of trade, price, and form; in which affection, virtue, and happiness, are not consulted; from which the parties derive no felicity, and society receives no advantage. But where nature leads the way, all the lovely train of virtues, domestic happiness, and the greatest of all public benefits, a rapid population, are found to be the fruit.

ACTIVITY AND ENTERPRIZE.—A spirit of activity and enterprize is every where found in a new state. Depending upon their own industry, and having nothing to expect from speculation and gaming in public funds, or from the errors or vices of government, the views of the people are directed to their own employments and business, as the only probable method of acquiring subsistence, and estate. Hence arises a spirit of universal activity, and enterprize in business. No other pursuits or prospects are suffered to divert their attention; for there is nothing to be acquired in any other way. Neither begging, or gaming, or trading upon public funds, measures, and management, can be profitable employments to the people who live at a distance from wealthy cities, and the seat of government. The only profitable business, is to pursue their own profession and calling.—To this pursuit their views become directed; and here, their activity and enterprize become remarkable. No difficulty or hardship seems to discourage them. And the perseverance of a few years generally serves to overcome the obstacles, that lay in their way at first. It is only those who are of this enterprising spirit, who venture to try their fortunes in the woods; and in a few years, it generally raises them into easy and comfortable circumstances.—To the most essential and necessary duties of man, heaven has annexed immediate and important blessings. The people thus active, laborious,

tious and perpetually in hard exercise, are substitute of many of the conveniencies of life, and of what in every populous city would be esteemed its necessaries. Can their health and limbs remain unimpaired, amidst this scene of hard living and hard labour? Will they not make away thus lacerating in the woods, without good living, able physicians, and the advantages of medicine? So far from it, that no people have so few diseases, multiply so fast, or suffer so little from ficknefs. Temperance and labour do more for them than art and medicine can do for others. The disorders which wear away the inhabitants of wealthy cities, are almost unknown in the woods. Very few die, but under the unavoidable decays of nature, and the deaths are to the births, in the higher a proportion than 1 to [illegible]. Unacquainted with the instruments which are made in the medical art in Europe, the people of the new settlements neither know the names of the diseases, or their remedies; nor have any need of their discoveries or prescriptions. The benevolent Author of Nature has annexed that health to their temperance, industry, and activity, which is never found in drugs, medicines, or any attainments of art. And while the people are thus active and industrious in performing their duty, the property and bodies of individuals, and the prosperity of the state, are all found to flourish together.

EQUALITY. The nearest equality that ever can take place among men, will also be found among the inhabitants of a new country. When a number of men are engaged in the same employments and pursuits, and have all of them to depend upon their own labour and industry for their support, their situation, views, and manners, will be nearly the same, the way to subsistence, as safe, and independence, being the same to all. In this stage of society, the nearest equality will take place, that ever can subsist among

men,

men. But this equality will be nothing more than an equality of rights, and a similarity of employment, situation, pursuit, and interest. In a new country this similarity will be so great, as to form a near resemblance of manners and character, and to prevent any very great inequalities of privilege from taking place in society, either from rank, offices of government, or any other cause.—But nothing ever did, or ever can produce an equality of power, capacity, and advantages, in the social, or in any other state of man. By making men very unequal in their powers and capacities, nature has effectually prevented this. The whole race resemble one another in the make and form of their bodies; in their original appetites, passions, and inclinations; in reason, understanding, and the moral sense, &c. But in these respects it is similitude, not equality, which nature has produced. To some, the Author of Nature has assigned superiour powers of the mind, a strength of reason and discernment, a capacity of judging, and a genius for invention, which are not given to others. To others, the Deity has assigned a strength, vigour, and firmness of constitution, by which the bodily powers are more favoured in one, than in another. Causes thus natural and original, will be followed with their natural and proper effects. Superiour wisdom and abilities, will have superiour influence and effect in society. Superiour strength and activity of body, will also have advantages peculiar to themselves. In making these natural distinctions, nature evidently designed to qualify men for different attainments, and employments. And while she gave to all the nature and the rights of man, she assigned to some a capacity and a power, to make a much more useful improvement and exercise of that nature, and of those rights, than she has given to others.—Thus a state of nature is itself a state of society, or at least naturally tends to produce

it. And in the earliest stages of society, all that equality will take place among mankind, which is consistent with it. Placed in a situation nearly similar, the employments, views, and pursuits of the people, become nearly the same. The distinctions derived from birth, blood, hereditary titles and honours, and a difference of rights and privileges, are either unknown or resolve themselves into nothing, among a people in such a situation; in every view, they cease to be of any use or importance to them. Their situation naturally leads them to discern the tendencies, and designs of nature. They all feel that nature has made them equal in respect to their rights; or rather that nature has given to them a common and an equal right to liberty, to property, and to safety; to justice, government, laws, religion, and freedom. They all see that nature has made them very unequal in respect to their original powers, capacities, and talents. They become united in claiming and in preserving the equality, which nature has assigned to them; and in availing themselves of the benefits, which are designed, and may be derived from the inequality, which nature has also established. Wherever a number of people are engaged in a common, economical, laborious pursuit of subsistence, property, and security; such views of their equality, and rights, immediately occur to their minds; they are easily discerned, and they are perfectly well understood.

ECONOMY.—Every thing in the situation and employments of the people, in a new country, will naturally tend to produce economy. There are no large estates, or cultivated farms, prepared beforehand for the heir. Every thing for food, raiment, and convenience, must be procured by the labour and industry of the planter; and it is not without much difficulty and hardship, that the people can procure the necessaries of life at first, or the conveniences

nience of it afterwards. What is thus procured with labour and difficulty, will be used with prudence and economy. The custom will not be to fall into scenes of expensive entertainments, amusement, and dissipation; But to provide for the calls and demands of nature, to preserve the health and vigour of the body, and to be able to raise up and support a family. And this will of course, introduce a steady regard to economy, in all their expenses, habits, and customs.—The influence that this has on the affairs of individuals, and on the state of society, is every where apparent. No such degrees of wealth can ever exist in any place, as shall be equal to the demands of luxury. And where custom has introduced a habit of living and expense, above the annual income, dependence, venality, and corruption, with constant want and distress, is the never failing consequence. But the most pernicious of all the effects of luxury, is the degradation it brings on the nature of man. It destroys the vigour and powers of men, and by constantly enfeebling the body and mind, seems to reduce them to a lower order of beings. The body, weakened by excessive indolence and indulgence, loses health, vigour, and beauty, and becomes subject to a thousand emaciating pains and maladies. The mind, subdued by indolence and inactivity, scarcely retains its rational powers; and becomes weak, languid, and incapable of manly exertions, or attainments. To a state thus degraded, effeminate, and unmanly, luxury frequently reduces those, who bear the remains of the human form. Political writers have frequently argued that luxury was of real service to the nations of Europe; that it tended to find employments for the poor, and was necessary to keep the money in circulation. This reasoning cannot be contradicted: But it supposes the state of society to be essentially bad; and that it cannot be supported but

by

by the management, operations, and balance of vices. In such a state of society, luxury is certainly a benefit; And the highest degree of it, would be the greatest benefit of all. It would be the best thing that could happen in such a society, for the corrupted vengeful part to spend their estates, by luxury and dissipation, and to have them pass into other hands. This would be far better for mankind than to have them live useless, be constantly corrupting others, or train up an emaciated feeble race, degraded by effeminacy and weakness, below the rest of the human race. Whatever might be done to load such with honours, titles, and distinctions, it will be impossible ever to make them men of, at least such kind of men, as shall be upon terms of equality with the rest of the human race.—Activity, industry, and economy, will prevent such a race from appearing, or such effects from taking place, in any of the new states of America.

HOSPITALITY.—That benevolent friendly disposition, which man should bear to man, will appear under different forms, in different stages of society. In the first combinations of mankind, when all are exposed to danger, sufferings, and want, it appears in one of its most amiable forms, and has been called hospitality. In this form it exists among the people who are subjected to the common danger, fatigue, and sufferings, which attend the forming of new settlements. Feeling every moment their own wants and dangers, they are led by their situation, to assist each other in their difficulties and danger. The traveller finds among them, all the relief their circumstances will enable them to afford him: And before they are able to erect houses for public entertainment, the stranger is sure to find the best accommodations, the situation of private families will admit.—This hospitable disposition seems to be universal, in all the new settlements: And the

unfortunate

unfortunate and poor man finds a relief from it, which he never expects to find among a more wealthy people. No custom was ever better adapted to afford relief to an individual, or to promote the advantage of the state. A beggar or robber is scarcely ever to be seen in a country where there is nothing to be obtained by the business. The poor find their relief in labour, and not from a multiplicity of laws, which extract large sums from others, but afford little relief to them: And from the profits of their labour, they will soon cease to be in distress. Those that appear to be objects of charity are generally such in reality: And where the public has not been abused by such pretences, few will be exposed to suffer on such accounts. In such a state of society, hospitality naturally performs what it ought to perform: It encourages none in idleness and dissipation, but relieves those whose circumstances require relief. It provides only for those, who cannot find other resources, and time only to put such into a situation, in which they may support themselves, and be of use to the public.

CHAP.

CHAP. XIV.

Of Society.—Religion: Importance of this Principle, Danger of any Controul in it, Equality of all Denominations, Effect of this Equality, Grants and Laws for the Support of Religion, Extent of Religious Liberty, Connexion of Religion with Science and Education.

RELIGION is one of thefe concerns, which will always have great influence upon the ftate of fociety. In our original frame and conftitution, the Benevolent Author of our Natures, has made us rational and accountable creatures; Accountable to ourfelves, to our fellow men, and to our God. Thefe foundations of religion, are fo ftrong, and univerfal, that they will not fail to have an effect upon the conduct of every one; And while they thus enter into the feelings and conduct of all the members, they will unavoidably have a great influence upon the ftate and conduct of fociety. Nor can fociety either fet them afide, or carry on the public buſineſs without them. Inſtead of this, in one form or another, fociety will be perpetually calling in the aids of religion. When human declarations and evidence are to receive their higheſt force, and moſt ſolemn form, or when the moſt important tranſactions are to be performed, and offices of the higheſt truſt and conſequence are committed

mitted to men, the laſt appeal will be to religion, in the form of ſolemn affirmation or oath.

The moſt pure and benevolent ſyſtem of religion, which has ever prevailed among men, is that of Chriſtianity. This religion founded in truth, and adapted to the nature and ſtate of man, has propoſed for its end and aim, that which is of the higheſt importance to men and to ſociety, univerſal benevolence, the love of God and man, or univerſal virtue. But neither this, nor any other ſyſtem of moral truth, can inſpire infallibility into men. Whatever infallibility there may be in morals, in mathematics, or in revealed truths, men may greatly miſtake when they come to explain, and apply them: And inſtead of being above all poſſibility of error, they will find that infallibility belongs only to the government of God; and that it certainly is not entailed upon any parties, or denominations of men. Nothing therefore could be more dangerous, than to allow to any of theſe denominations the power to make laws to bind the reſt, in matters of religion. The ruling party would vote themſelves to be the only pure denomination, they would make the reſt contribute to their ſupport, and eſtabliſh their own ſentiments and practice, as the perfection of knowledge, wiſdom, and religion; and in this way adopt meaſures, which tend to entail all their imperfections and errors, upon future ages. The dominion of one party over another in matters of religion, has always had this effect. It has operated to confirm error, oppreſs the minority, prevent the ſpirit of free inquiry and inveſtigation; and ſubjected men to the moſt unrelenting of all perſecutions, the perſecution of prieſts and zealots, pleading principle to juſtify their vileſt actions.—At the ſame time, every good man feels himſelf bound not to renew or admit any ſuch authority in matters of religion. The obligations of religion are antecedent to, and more

ſtrong

strong than any obligations derived from the laws of society. The first and the most important obligations they must feel, are to obey his Maker, and the dictates of his own heart. The peace of the world depends more essentially upon this, than any other circumstance in the affairs of human life.—What then has society to do in matters of religion, but simply to enforce the laws of nature; To adapt them, and to secure to every man a full and perfect liberty, to follow the dictates of his own conscience, in all his professions with his Maker?

The people of Vermont have adopted this principle in its full extent. Some of them are episcopalians; others are congregationalists, others are of the presbyterian and others are of the baptist persuasion; and some are quakers. All of them find their need of the assistance of each other, in the ordinary concerns and business of life; and all of them are persuaded, that the government has nothing to do with their particular and distinguishing tenets.—It is not barely *toleration*, but *equality*, which the people possess.—Toleration implies either a power or a right in one party, to bear with the other; and seems to suppose, that the governing party are in possession of the truth, and that all the others are full of errors. Such a toleration is the most that can be obtained by the minority, in any nation, where the majority assume the right and the power to bind society, by established laws and forms in religion. The body of the people in this commonwealth, carry their ideas of religious liberty much further than this; That no party shall have any power to make laws or forms to oblige another; that each denomination may lay themselves under what civil contracts and obligations they please; but that government shall not make any distinctions between them; that all denominations shall enjoy

The [illegible] religious freedom, to private quietude and peaceably to their own [illegible] are excluded from civil offices, on account of their particular religious sentiments. The clergy of the several denominations, have no claim to the least emolument, but entirely their own property. The people are under no obligations to support any religious establishment, unless they themselves make it. And as civil advantages are to be gained, or lost, by belonging to one denomination, rather than another, no influence is given to one denomination rather than another, but liberty, conscience, and conscience, the true equality of all parties, religious professions become what they always ought to be, the matter of opinion, persuasion, and conscience; Christianity and faith depending on the Deity, in which none expect to find the power of appealing or ruling over others, but the same protection and benefit from the government, which they all equally pay in supporting it.

The settlement and support of the ministers of religion, has been encouraged and assisted by the government. The earliest grants of land in this state, were made by Benning Wentworth, governor of New-Hampshire. This gentleman was of the communion of the church of England. In the grants of land that were made by him, there were three rights in each township reserved for religious purposes. One to the society for propagating the gospel in foreign parts; one for a glebe, assigned for the use of an episcopal clergy; a third for the first settled minister, intended for his private property, to en-

courage the settlement of a minister in the new plantations. In the grants of townships which have been made by the government of Vermont, two rights have been reserved for the support of ministers. One for a parsonage, designed for the first settled minister, and unalienable from that office, another to become the property, and designed to encourage the settlement of the first minister. This right accrues to the first clergyman who is settled in the town, of whatever denomination he may be. The salary of the minister arises wholly from the contract which the people may make with him. These contracts are altogether voluntary. But when made, by a law passed October 18, 1785, are considered as being of equal force and obligation as any other contracts, but no persons of a different denomination are obliged by them. The law has no reference to any particular denomination, but considers them all as having a right to make what contracts they please, with the minister they choose, and bring of course bound by their own act to fulfil their contracts. A law designed to confirm the equal rights of all is not subject to the exceptions or complaints of any party.

No embarrassment have attended any of the grants of land, which have been made for religious purposes, but those designed for a glebe, and those made to the society for propagating the gospel in foreign parts. In most of the towns there are not any persons of the episcopal perfuasion, nor any incumbent to have the care of the glebe lots. The society for propagating the gospel in foreign parts, have not concerned themselves about the lands, which were granted to them. Both these rights have remained unimproved and uncultivated, except where individuals have gained possession of them, and it has been a disadvantage to the state, to have such tracts of land lying waste. It has been repeatedly a

matter

matter of consideration in the general assembly, what ought to be done with these lands. Instead of coming to any decision upon the matter, in October, 1787, the general assembly passed an act, authorizing the selectmen of the several towns, to take care of the improved rights, glebe and society lands, for the space of seven years, and to apply the incomes to the improvements of the land, [illegible] excepted, which were in the possession of an [illegible] minister. This act has been but little attended to, and is not at all competent to the improvement of the lands, or to render them beneficial to the state, or to any valuable purpose. In any view of the matter, these lands ought not to be suffered to remain useless, and detrimental to the state. If the society for propagating the gospel in foreign parts, had made such an allignation of them, as would have served to promote religious instruction and knowledge, the people would have had the benefit that was intended by the grantor. If this be neglected an unreasonable time, it becomes the duty of the legislature, to prevent their remaining a public disadvantage to the state, by continuing uncultivated and useless.

The principles of religious liberty, are asserted in their fullest extent, in the constitution of Vermont. In the declaration of rights, there is a clause which seems to be adequate to the subject, and clearly expresses the religious rights of the people.—"Nor can any man be justly deprived or abridged of any civil right as a citizen, on account of his religious sentiments, or peculiar mode of religious worship; and no authority can, or ought to be vested in, or assumed by any power whatever, that shall in any case interfere with, or in any manner controul the rights of conscience, in the free exercise of religious worship."* In the plan of government formed in 1778,

* Declaration of rights, Article III.

[illegible] and carried in [illegible] [illegible] [illegible]

body of the people, appear to be the most flexible, of this kind, that profession can admit of. From the first alienation of the property of government, the assembly had uncontrouled power, the establishment of a university in the state, and with this view, reserved one eighth of land in all the townships which they granted, for the use of such an institution. In November, 1792, the legislature passed an act establishing the university at Lexington, upon a liberal, extensive, and judicious foundation. The honourable gentleman, concerned upon the business of instruction, [illegible] would be furnished with able and judicious assistants; by extending the benefits of education, and promoting an attention to the arts and sciences, it would greatly assist the intellectual and moral improvement of the people. These improvements are of essential importance to men, in every stage of society, but more of all necessary, when they are forming a new constitution

CHAP.

CHAP. XV.

STATE OF SOCIETY.—*Nature of the American Government.—Constitution of Vermont.—Laws, Counties and Courts.—Annual Expense of Government.—Public Revenue.—Militia.—Popularity of the Government.*

NATURE OF THE AMER. GOVERNMENTS.

THE object and the principle of government is the same, in every part of the United States of America. The end or the design of it, is the public business; not the power, the emolument, or the dignity, of the persons employed, but only that public business which concerns either the whole federal territory, or some particular state. The *principle* on which all the American governments are founded, is *representation*. They do not admit of sovereignty, nobility, or any kind of hereditary powers; but only of powers granted by the people, ascertained by written constitutions, and exercised by representation for a given time.

Governments founded on this principle, do not necessarily imply the same *form*. They do not admit of monarchy, or aristocracy; nor do they admit of what was called democracy by the ancients. In the ancient democracies the public business was transacted in the assemblies of the people: The whole body assembled to judge and decide, upon public affairs. Upon this account, the ancient democracies were found to be unfit, and inadequate to the government of a large nation. In America this

difficulty

difficulty never occurs: All is transacted by representation. Whatever may be the number of the people, or the extent of the territory, representation is proportioned to it; and thus becomes expressive of the public sentiment in every part of the union. Hence the government in different states, though chiefly republican, varies in its form; committing more or less power to a governor, senate, or house of representatives, as the circumstances of any particular state may require. As each of these branches is derive their whole power from the people, are accountable to them for the use and exercise they make of it, and may be displaced by the collective voice of the people, the security of the people is derived not from the nice ideal application of checks, ballances, and mechanical powers among the different parts of the government, but from the responsibility and dependence of each part of the government upon the people.

This kind of government seems to have had its form and origin from nature. It is not derived from any of the histories of the ancient republics. It is not borrowed from Greece, Rome, or Carthage. Nor does it appear that a government founded in representation ever was adopted among the ancients, under any form whatever.—Representation thus unknown to the ancients, was gradually introduced into Europe by her monarchs; not with any design to favour the rights of the people, but as the best means that they could devise to raise money. The monarchs who thus introduced it, with a view to collect money from the people, always took care to check it when it ventured to examine the origin and extent of the privileges of the sovereign, or of the rights of the people.—In America every thing tended to introduce, and to complete the system of representation. Made equal in their rights by nature, the body of the people were in a situation nearly

similar

similar with regard to their employments, profits, and views. Without the distinctions of titles, families or nobility, they acknowledge all men equal: these distinctions which nature has made in diversity of talents, abilities, and virtues. These have no claim in their common-wealth, but such as serve to appreciate them. The same motive would induce the people of a free, sufficient and happy country, to maintain a form of government, as first derived from the ancient parliament of England. Nothing remained for such a people, but to follow what nature taught; and as they were not disposed to attempt to carry on their government in the form of the ancient democracies, they naturally adopted the system of representation. Every where choosing representatives, and assigning to them such powers as their circumstances required. This was evidently the system of government, that nature pointed out. And it is a system that has not, where it has suffered to prevail but in America, and where the people were naturally led to by the situation in which Providence has placed them. The system of government there in America, is not derived from superstition, conquest, military power, or a pretended compact between the rulers and the people, but it was derived from nature, and exists and is founded in the nature, capacities, and powers, which God hath assigned to the race of men.

All the power that such governments can have, is derived from the public opinion. The body of the people while they remain industrious and economical, will be steadily attached to the public interest, which will entirely coincide with their own. They will more readily discern what their interest is, and be more steadily attached to it, than is to be expected from men who are placed in offices of honour and profit. The public opinion will be much greater

in the earth, that the readiness and sufficiency of production or increase must [illegible] The former will be founded chiefly in a desire and ability to promote the public interest; the latter will be immediately moved by self-government, by private views, interests, and passions. And where the government has the general spirit of the people on its support, it is armed with the greatest force and power that it is possible for the human mind to conceive. [illegible] force that ever can be exerted by any government in any situation whatever. Despotism never did nor can exert a force equal to this. When a whole people unite, and the public spirit moves and operates in the same direction, nothing can withstand it: forts, and the powers of despotism, with all their standing troops and regular armies, fall before it. It is only when the public sentiment and spirit is not united and brought into action, that government is not acquired, or is able to exert the whole force of the national power. With this strength, the governments of America united every kind of difficulty, rose superiour to all opposition, firmly established themselves, in fifteen different states, and gave uncommon vigour and efficacy to a federal establishment, which was designed and adapted to manage the public business of the whole system.

But whatever be the form or the power of government, it cannot attain its greatest perfection, unless it contains within itself, the means of its own *improvement*. The men of civilized countries, are making gradual and constant improvements in knowledge, in the sciences, and in all the arts by which life is made more secure and happy. Hence, that form of government which was best suited to their state in one stage of society, ceases to be so, in another. And unless the government itself improves, with the gradual improvement of society, it will lose much of its respectability, and power, become unsuited to

the ſtate, and injurious to the people. Deſpotiſm has always contemplated the body of the people, as a mere mob, and has aimed and endeavored to keep them in that ſituation. To governments founded in this principle, the improvement of mankind proves fatal and deſtructive: And there is nothing ſuch governments are more anxious to prevent, than knowledge, property, and improvement in the body of the people.—Built upon the rational and ſocial nature of man, the American government expects to find its ſureſt ſupport, and greateſt duration, in the gradual improvement, in the encreaſing knowledge, virtue, and freedom, of the human race. The preſent government of America, is therefore propoſed to her citizens, not as the moſt perfect ſtandard of what man can ever attain to, but only as the beſt form, which we have as yet been able to diſcover; Not as a form, which is to bind our heirs and poſterity forever, but as a form which is referred to them, to alter and improve, as they ſhall find beſt. Upon this idea, it is one of the conſtituent and eſſential parts of American government, that conventions ſhall be called at certain periods of time, to alter, amend, and improve the preſent form and conſtitution of government, as the ſtate, circumſtances, and improvements of ſociety, ſhall then require. Thus proviſion is made, that the improvement of government, ſhall keep pace with the improvement of ſociety in America. And no policy would appear more puerile or contemptible to the people of America, than an attempt to bind poſterity to our forms, or to confine them to our degrees of knowledge, and improvement: The aim is altogether the reverſe, to make proviſion for the perpetual improvement and progreſſion of the government itſelf.

As this kind of government is not the ſame as that, which has been called monarchy, ariſtocracy, or democracy; as it had a conſpicuous origin in America, and

and has not been fuffered to prevail to any other part of the ſtate, it would be no more than juſt and proper to diſtinguiſh it by its proper name, and call it *The Antient Syſtem of Government*.

CONSTITUTION OF VERMONT.—The government of Vermont is of the ſame nature, and founded upon the ſame principles, as the other governments in the United States. By their conſtitution, formed in 1778, and reviſed in 1786, and 1793, the ſupreme legiſlative power is veſted in a houſe of repreſentatives of the freemen. Every town has a right to chooſe a repreſentative, on the firſt Tueſday of September annually. The repreſentatives thus choſen, are to meet on the ſecond Thurſday of the ſucceeding October, and are ſtyled *The General Aſſembly of the State of Vermont*. They have power to chooſe their own officers; to ſit on their own adjournments; prepare bills, and enact them into laws; they may expel members, but not for cauſes known to their conſtituents antecedent to their election; impeach ſtate criminals; grant charters of incorporation, conſtitute towns, boroughs, cities, and counties; in conjunction with the council they are annually to elect judges of the ſupreme, county, and probate courts, ſheriffs and juſtices of the peace; and alſo with the council, may elect major-generals, and brigadier-generals, as often as there ſhall be occaſion: They have all other powers neceſſary for the legiſlature of a free and ſovereign ſtate; but have no power to add to, alter, abolish, or infringe any part of the conſtitution.

The ſupreme executive power is veſted in a governor, or lieutenant-governor, and a council of twelve perſons, choſen by the freemen, at the ſame time they chooſe their repreſentative. The governor, or the lieutenant-governor and council, are to commiſſion all officers; prepare ſuch buſineſs as may appear to them neceſſary to lay before the general aſ-

ſembly;

sembly. They are to sit as judges on bills and impeachments, taking an oath for that purpose, for which only the judges of the supreme court. They have power to grant pardons, and remit fines in all cases whatsoever, except in treason and murder, in which they have power to grant reprieves, but not to pardon until after the end of the next session of assembly, and in cases of impeachment, in which there is no remission or mitigation of punishment, but by act of legislature. They may also lay embargoes, or prohibit the exportation of any commodity, for any time not exceeding thirty days, in the recess of the house only. The governor is captain-general and commander in chief of the forces of the state, but shall not command in person, except advised thereto by the council, and then only so long as they shall approve. And the lieutenant-governor, being by virtue of his office, is lieutenant-general of all the forces of the state.

Thus the laws before they are enacted may be more maturely considered, and the inconveniences of hasty determinations as much as possible prevented, all bills which originate in the assembly are laid before the governor and council for their revision and concurrence, or proposals of amendment; who return the same to the assembly with their proposals of amendment (if any) in writing, and if the same are not agreed to by the assembly, it is in the power of the governor and council, to suspend the passing of such bills, until the next session of the legislature. But no negative is allowed to the governor and council.

The framers of the constitution were aware that the plan of government, which they had drawn up, would not be adequate to the affairs of government, when the state of the people should become different, but must necessarily vary with it. And they wisely made provision to have the whole frame[illegible]

and

and revised at the end of every seven years. This provision they made for the purpose of ascertaining whether the constitution had been violated in every part; whether the legislative, executive or judicial departments of government, have performed their duty as guardians of the people; or assumed to themselves, or exercised other or greater powers than they are entitled to by the constitution. It will also be enquired whether the public taxes have been justly laid and collected; in what manner the public money has been disposed of; and whether the laws have been duly executed. Power fully competent for these purposes, are hereby vested in the council of censors, which is to consist of persons, one from each county, elected and chosen in the same manner and at the same time that representatives are by this constitution to be elected and chosen. Their first session shall be held within seven years after the first session of the general assembly of this state, and their sessions shall be held septennially thereafter. They shall have authority to pass public censures, to order impeachments, and to recommend to the legislature the repealing such laws as shall appear to them to have been enacted contrary to the principles of the constitution. These powers they may exercise during the space of one year, from the time of their election, and they may call a convention to meet within two years after their sitting, if they judge it necessary.

In framing a constitution of government, the most capital circumstance to be taken into consideration, is, the condition and circumstances of the people, or the state of infancy among them. At the first assumption of government in Vermont, the form of it differed but little from the democracy of the ancients. From that period, it has been constantly tending to give more power to the house of representatives.—But it is found by experience, that in so popular a government, nothing is more necessary than some provision, like that of the council of censors, to control the public proceedings, and if

certain

certain periods of time; and such alterations made in the constitution, as time, events, or the circumstances of the people may require. As the state of society is progressive, there is no way to have the government adapted to the state of society, but to have the government also progressive; that both may admit of the improvements, that are gradually made in human affairs. With this provision, a constitution of government which contains many faults, will gradually mend and improve itself, without being forced to the dangers and convulsions of a revolution. And it seems to be the only provision which human wisdom has yet found, to prevent the interposition of such calamities.

LAWS.—So much of the common law of England as is not repugnant to the constitution, or to any act of the legislature, is adopted as law within this state; and such statute laws, and parts of laws of the kingdom of England and Great-britain, as were passed before the first day of October, 1760, for the explanation of the common law, and are not repugnant to the constitution, or some act of the legislature, and are applicable to the circumstances of the state, are likewise adopted and made law in Vermont.—The criminal law of Great-britain seems to be adapted only to a very degraded, vicious, and barbarous state of society. No less than one hundred and sixty crimes are punishable by death. Sanguinary laws and executions have there made death so common and familiar, that it seems to have become one of those common occurrences, which is constantly to be expected, and is very little regarded. Several of the punishments, in the contrivances of their cruelty, are fully equal to any thing that has ever been perpetrated by the Indians of America: In brutal rage and inhuman torture, the punishment assigned to high treason, fairly exceeds any thing the Indian genius could ever conceive.—Such a code of criminal

and law is wholly unfitted to the uncorrupted state of the people in America; nor would they in any part of the continent be persuaded to admit it. Instead of one hundred and forty, there are only nine crimes, to which the laws of Vermont have affixed the punishment of death. And since the first assumption of government in 1777, there has not been any person convicted of [illegible]. What relates to the internal [illegible] the regulations necessary [illegible] as are suited to our particular [illegible] provided for by statutes made for such particular cases and purposes.—To form a code of laws suited to the state of a large nation, has been justly esteemed the most difficult part of government. It does not appear that human wisdom has ever been able to effect this without great errors, in any part of the earth. If it is to be obtained, the inhabitants of America have now a fair opportunity to make the experiment, how far human wisdom has proceeded at present, in effecting this arduous but most important attainment.

COUNTIES AND COURTS.—For the more convenient administration of justice, the state is divided into eleven counties; viz.

Counties.	*County Towns.*
Bennington,	Bennington, Manchester.
Windham,	Newfane.
Windsor,	Windsor, Woodstock.
Rutland,	Rutland.
Orange,	Newbury.
Addison,	Middlebury.
Chittenden,	Burlington.
Caledonia,	
Essex,	
Franklin,	
Orleans.	

In

In the four last counties, courts are not to be holden until the first day of October, 1795. In the other counties there are probate courts, justices courts, county courts, a supreme court, and a court of chancery.

The justices of peace in each county are annually nominated, and appointed by the general assembly. They are of course the same persons, as the members of the assembly from each county, with the addition of a few others. They have power to try and determine all pleas and actions of a criminal nature, where the fines and forfeitures are within the sum of forty shillings, and the corporal punishment shall not exceed ten stripes. They may also try and determine all pleas and actions of a civil nature, other than actions of defamation, replevin, trespass upon the freehold, and where the title of land is concerned; where the debt, and other matter in demand, doth not exceed the sum of four pounds; and also determine on all specialties, notes of hand, and settled accounts, not exceeding the sum of eight pounds. They may also bind over to be tried by the county or supreme court, all criminal offenders, the enormity of whose misdemeanor surpass their power to try. No judgment rendered by a justice of peace, can be reversed by writ of error. But appeals are allowed to the next county court, in all cases where the judgment for debt or damages, shall exceed the sum of forty shillings.

In each county there is also a county court; consisting of three judges, who are also annually appointed by the assembly. The county courts, within their respective counties, are to take cognizance of all criminal matters of every name and nature (except such cases as are cognizable only in the supreme court, or before a justice of the peace) and award sentence. But any person prosecuted for a criminal offence, may appeal from the judgment of

a county court to the next supreme court. All actions and pleas of a civil nature, except such actions as are made cognizable solely before the supreme court, or justices of the peace, shall be originally commenced, and prosecuted to effect in a county court.

The supreme court, or judiciary, consists of three judges, chosen by the legislature, or the governor, council, and assembly, at their October session. This court has cognizance of all pleas of the state, criminal, capital and civil, and whatever relates to the conservation of the peace, and punishment of offenders; and also of civil causes or actions between party and party, and between the state and any of its subjects, whether the same be brought into said court by appeal, writ of error, or in any other legal way whatsoever. The supreme court has original and exclusive jurisdiction of the crimes of adultery, polygamy, and all capital felonies, of treason, misprision of treason, counterfeiting the current coin of the state, and every species of forgery, perjury, subornation of perjury, incest, rape, arson, the crime against nature, sodomy, and all other crimes and misdemeanors, where crime or penalty is going to the state treasury, or where the punishment extends, either by common or statute law, to the loss of life, limb, or banishment.—The supreme court holds one circuit in Bennington county, on the first Tuesday in August; from thence it proceeds to Rutland, the next adjacent county, beginning the session there on the second Tuesday in August; and in this order proceeds through all the counties in the state, beginning the session in the next county on the succeeding Tuesdays, until they have finished the circuit in seven weeks at Windham county; And it is left to the chief judge, to call a special court where the exigencies of government shall require it.

A court of chancery is also constituted in the state of Vermont, in behalf of [illegible] within the state, at the several [illegible] pointed by law for holding the [illegible] dicature. The judges of the [illegible] constituted judges or chancellors of [illegible] chancery. The laws also in [illegible] cised by that court in the [illegible] and in the neighbouring [illegible] the constitution. The [illegible] court, is to be governed and regulated [illegible] conforming, as near [illegible] to the [illegible] precedents established in the courts of [illegible] the kingdom of Great Britain.

ANNUAL EXPENSES OF GOVERNMENT. The annual expense of the government in general, is about thirty-two or thirty-three hundred pounds. In the year 1792, the several articles of it were these.

The governor's salary, £360

Lieutenant-governor's fees for attending council, fifteen shillings per day.

Councillors' fees for attending council, seven shillings per day.

Representatives' fees for attending the general assembly, six shillings per day.

Secretary of state's fees for attending the general assembly, twelve shillings per day.

Secretary of council's fees for attending the council, nine shillings per day.

Officers attending the general assembly, sheriff, auditor of accounts, chaplain, &c. six shillings per day.

Chief

[illegible] 1390 5 3

[illegible] 118 0 0

[illegible] 449 14 9

[illegible] 1795 £. 3 459 9 9

[illegible] and annual expenses at- [illegible] and do not greatly differ in [illegible] the number of representatives [illegible] the public expense is annually increasing on them. There are other [illegible] annual, and others triennial. Of the first are [illegible] for public purposes, the council of censors, conventions, &c. Annuals are only for some particular or occasional purpose, the expense varies with the occasions, and they cannot be estimated among the annual charges of government.

The whole expense then of government, from October, 1794, to October, 1795, amounted to three thousand two hundred and fifteen pounds, nine shillings and nine pence. If this sum is divided among the inhabitants of the state, as ascertained by the census taken in 1791, it will amount to but nine pence, or the eighth part of a dollar, for each person. This is the sum that each person in Vermont pays for the protection of his person, property, and the advantages of a free government. In Europe there is not any part of the civilized world, in which the inhabitants enjoy the blessings of government at so small an expense.

[illegible]

PUBLIC REVENUE.—The revenue of [illegible] ariseth wholly from the public taxes. For [illegible] time after Vermont had assumed the [illegible] government, very considerable [illegible] from the unappropriated lands: [illegible] most all appropriated, [illegible] derived from this source. [illegible] country, can never be [illegible] ble revenue. The only [illegible] is taxation.—In the year 1791, the [illegible] the taxable property [illegible] £.824,706 18 10. The [illegible] were directed to [illegible] cattle, were scarcely [illegible] these articles. The [illegible] could not amount to [illegible] the taxable property [illegible] an abatement upon [illegible] Vermont, a tax was [illegible] upon the pound, amounting [illegible] expence of collecting this [illegible] to the collector, a [illegible] ment is made for [illegible] twentieth part. These [illegible] the sum the government receives [illegible] With the addition of £.83 to the [illegible], was the whole expence of government, [illegible] six thousand pounds, defrayed in the year 1792. If this be compared with the expence of government in Europe, the difference will be found to be infinite. The [illegible] Vermont, will [illegible] union above thirty [illegible] this state.

It ought also to be [illegible] for the benefit and remembrance of the people of [illegible]. For this is the place, where [illegible] in government, always makes its first [illegible]. Here [illegible] useful and [illegible] good men, the [illegible] public places and offices. And [illegible] the person,

and

generals, the subalterns, and the privates
united.

The militia of [illegible] a hardy, [illegible]
hardihood, [illegible]
all the qualifications [illegible]
must constitute. [illegible]
form their [illegible]
by the [illegible]
subsisted [illegible]
the regiments raised [illegible]
hardy, and robust [illegible]
among the inhabitants [illegible]

Foreigners [illegible]
experience the people [illegible]
operation of the [illegible]
deal with it, but they [illegible]
This is the [illegible]
upon [illegible]
may be [illegible]

While government [illegible] benefit and prosperity of the people, the people will be content to it. But when the body of the people become discontented and uneasy, it may be presumed, there is some capital error, or vice in the government. During a century and an half, every part of America was under the controul of the kings of Europe. The ministers of the European courts were perpetually interfering in the affairs of the colonies, and were persuaded that the colonists had not wisdom enough to govern themselves. Through the whole of this period, all those parts of America flourished the most, in which the European monarchs intermeddled the least. And there was not one foot of the continent, where the inhabitants were any better qualified to govern

The increase of mankind, thus confined within certain limits by nature, is also very much affected by the state of society. The condition of the body of the people, the ease or the difficulty with which they can procure property to maintain a family, the genius of the civil government, the spirit and regulations of religion, the numbers employed and the destruction occasioned by war, the institutions of celibacy, with the manners and customs of the people, may retard or favour population to a great degree, and cause it to be very different in the same climate, and at the same place, at different times. Both these causes generally combine, and operate together; and in such a manner, that we cannot separate their effects; or determine how much is to be ascribed to the law of nature and climate, and what is derived from the state of society. This difficulty attends all the tables which have been made of births, deaths, and marriages. Tables of this kind have been made for almost every nation in Europe, and for several places in America. They appear to have been the result of accurate observations and calculation. But the results at different places in the same latitude and climate, have been so different, that no general conclusions can be drawn from them, respecting the natural increase of the human race. They mark what has taken place at a given time, and place; but they afford little information of what is to be expected, from the general course of nature, in any particular country, or climate.

By the late enumeration of the inhabitants of the United States of America, a period has been found in the course of human life, above, and below which the number of the males are nearly equal. This period is nearly at the age of sixteen years. Can we not derive some information, from so remarkable a fact, respecting the increase and population of the people of the United States? And may it not be determined what

must be the operation of nature, to produce and preserve this equality of numbers, below, and above that age?

Let us attempt to compute it upon a given case. Suppose the whole number of people in one of the states of America, enumerated to thirty two thousand; one half of which had not attained the age of sixteen, and the other half had passed this period. At the end of sixteen years, the whole number will have passed the mean period, and be found in that number whose age is above sixteen, making together thirty two thousand. To balance this number, nature must have produced in the same time, an equal number whose age will be below sixteen: That is, during this period of sixteen years, thirty two thousand must have been born. For every one then that has passed the period of sixteen years, nature must have produced two; otherwise the balance, or an equality in the numbers below and above that age, could not be preserved. And this would also be the exact period of doubling the number of the inhabitants.

This must be the operation of nature, if the subject on whom the calculation was made, had been invariable, or subject to no diminution. But this is not the case. Death is constantly diminishing the number of those whose age is above sixteen, of those whose age is below sixteen; and it diminishes them both, in the same proportion. This curious fact is ascertained by a course of observations, made in several towns in the eastern parts of Newhampshire. At *Hampton* an accurate table of deaths, with the age of each person, was kept by the ministers of the parish, from the year 1685 to 1794. Similar bills were kept at *Eastkingston*, from 1740 to 1774: At *Newmarket*, from 1731 to 1770: At *Dover*, from 1767 to 1786.* The result of these observations is,

* Belknap's Hist. of Newhampshire, III. p. 238—248.

is, that the whole number which died in those towns, during those years, was two thousand and ninety eight: Of these, one thousand and fifty were under sixteen years of age, and one thousand and forty eight above that age. In the result of so long a course of observations, made in four different towns, we may expect to find the regular course of nature, or the natural operation of death, well ascertained. And they seem fully to have established this curious fact, That death has an equal effect, or is constantly destroying equal numbers of those whose age is above, and of those whose age is below sixteen years.

Such is the operation and effect of death: And by constantly diminishing the numbers of mankind, it will every where prolong the period of doubling, beyond the mean period of human life. But to what degree will it retard this event; or to what length of time will it prolong the period of doubling? It will prolong the period of doubling, exactly in that ratio, which the deaths shall bear to the births, in the same period of time.—The bills which were kept in Newhampshire, do not contain an accurate account of the births, but only of the baptisms; and therefore will not serve to discover what proportion the deaths bear to the births, in those towns. But from the bills of mortality, which have been kept in Massachusetts, it has been found that the number of deaths, are annually in a constant and settled ratio to the number of births. At *Hingham*, the aged and venerable Dr. *Gay*, kept a very exact list of all the deaths and births in his parish, for the space of fifty four years, from 1726 to 1779, inclusive. The deaths amounted to one thousand one hundred and thirteen, the births to two thousand two hundred and forty seven. At *Ipswich*, the Rev. Dr. *Cutler*, made similar observations for a course of ten years, from Sept. 11, 1771, to Sept. 11, 1781. The number of deaths were one hundred

and

and sixty four, the number of births three hundred and thirty one.* At *Salem*, an accurate and able physician and philosopher, C. A. Holyoke, M. D. has given an exact bill for the years 1782, and 1789: The deaths were three hundred and sixty four, and the births seven hundred and two.† In these numbers we have the result of a course of observations carried on in three different places, during a period of sixty six years. The result of the whole, is, that the deaths were one thousand six hundred and forty one, and the births amounted to three thousand two hundred and eighty; that is, the deaths were to the births in the ratio of one to two. This is the annual and constant proportion of death to birth, in the ancient towns, along the sea coast, in Massachusetts. The increase of the people therefore derived from the births, is annually diminished one half by the natural operation of death; And instead of doubling in sixteen years as must have been the case had no one died, the effect occasioned by death, will be, to prolong this period one half; instead of sixteen years the period of doubling will become twenty four. This will be the period of doubling in all those places, where the mean age of human life is sixteen years, and the ratio of death to birth as one to two.

From this method of reasoning, I much suspect that the age at which the numbers of people are equally divided, will in every country prove to be the time, which nature requires in that climate, to produce double the number of people that are then living; That the actual period of doubling will in fact be retarded in exact proportion to that, which the deaths bear to the births; And that this ratio will very nearly determine what influence the state of society has, on the increase of mankind in any country or town.

I

* Memoirs of American Academy, Vol. I. p. 566.
† Ibid. 548.

I am not in poſſeſſion of the data that would be neceſſary to examine this theory, by the ſtate of things in the ancient and populous countries, of the other hemiſphere. But from the enumeration that was made of the inhabitants of the United States of America in 1790, we may venture to compute the ſtate of things among ourſelves. The number of males, their relative proportions, and the age at which the numbers below and above ſixteen become equal, are as follows:

	Males below 16 years of age.	Males above 16 years of age.	Difference.	Above 16 years of age.	Age at which the numbers below and above 16, become equal.
Northern States.—*Vermont, Newhampſhire, Maine* and *Maſſachuſetts, Rhodeiſland, Connecticut*, and *Newyork.*	317,540	338,600	21,060		Yrs. Mths. 16 2½
Middle States.—*Newjerſey, Pennſylvania, Delaware*, and *Maryland.*	211,846	223,737	11,891	Above 16, &c.	16 5½
Southern States.—*Virginia, Kentucky, Northcarolina, Southcarolina*, and *Georgia.*	262,464	244,757	17,707	Below 16 years of age.	15 5½

From this view of the reſult, it ſhould ſeem that the middle and northern ſtates were the moſt favourable to longevity, and the preſervation of life: And that the ſouthern ſtates were the moſt favourable to a rapidity of production, and increaſe. Whether theſe circumſtances will not ballance each other, and produce an equality in the period of doubling cannot be determined without further obſervations. In *Maſſachuſetts*, the period of doubling cannot be far from twenty four years and three months. What this period is in the other ſtates, muſt be determined either from actual obſervation, or by aſcertaining the ratio which the deaths bear to the births. If the enumeration which is to be taken in the year

1800,

1800, should be as particular with respect to the females, as the last was with respect to the males, it would enable us to ascertain several particulars in this part of the natural history of man, which cannot be determined without another enumeration.

It has been generally supposed, that the increase of mankind is most of all rapid, in a new country; and that it is in the new settlements, that nature acts with the greatest force and vigour. Vermont is now in the situation, in which a new country ought to be examined. We have no populous towns, seaports, or large manufactories, to collect the people together. They are spread over the whole country, forming small and separate settlements. Agriculture is almost the universal employment. But few are pinched for want of the necessaries of life, and nothing like luxury has yet taken place among us. The government is highly democratic. In religion the most perfect freedom and equality takes place among all parties. The taxes are no more than what are unavoidably necessary, to preserve the existence and form of government. Lands are easy to be procured, and the soil is rich and fertile.—Every family enjoys nearly the whole produce of their labour. The climate is salubrious and healthy. And neither war, sickness, or famine, have of late diminished the increase, or disturbed the labours of the people.—I do not know that we can find any new country, in which every circumstance seems more favourable to increase. Or any, in which we may more probably expect to find the *maximum*, which nature and society can produce in such a latitude and climate.—From the enumeration of the inhabitants taken in 1791, we have the following result:

VERMONT.

	Males below 16 years of age.	Males above 16 years of age.	Difference. Above 16 years of age.	Age at which the numbers below and above 16, become equal. Years. Months.
VERMONT.	22,328	22,435	107	16 1

To ascertain the effect produced by the natural operation of death, I have procured a bill of mortality for one of the principal towns, for the years 1789, 90, and 91. It is made for *Rutland*, from the observations of *E. Porter*, and *D. Reed*, two able physicians.

Number of inhabitants in Rutland in 1791.	Deaths.	Births.	Ratio of the deaths to the births.	Period of doubling prolonged by the deaths. Years. Months.
1407	46	223	1 to 4, 85	1 4

From this table it appears that the deaths in Vermont, are to the births, in the porportion of 1 to 4, 85; of consequence the period of doubling in this state, at present, is nineteen years and five months.*

From such views of the increase and population in America, we can scarcely avoid comparing the state of things in the United States, with that of the ancient and populous countries in Europe. In the city of London, if we may judge from the annual bills of mortality, the human race are annually decreasing; the deaths generally exceed the births, about one tenth every year. The savage state was less unfavourable to the increase of mankind, than such large and popolous cities: Instead of preserving, they tend to destroy the human race.

In most of the ancient and populous nations of Europe, their forms of government, their ecclesiastical

* Since writing the above I have received from Dr. Asaph Fletcher, an accurate observer and able physician, an account of the births and deaths in the town of *Cavendish*. In the course of seven years the number of births in that town was two hundred and ten; the number that died in the same period, was thirty. The ratio of deaths to that of births in that town, during this period, has been but as one to seven.

tical eſtabliſhments, the extreme luxury of one part of the people, and the extreme poverty of the other, their long and bloody wars, their numerous fleets and armies, the numbers which are reduced to ſervitude, and rendered incapable of ſupporting families, with the impious inſtitutions of celibacy, have nearly deſtroyed the natural increaſe of mankind; or at leaſt they have rendered it extremely ſlow, and uncertain. "In Great-britain, and moſt other European countries, they are not ſuppoſed to double in leſs than five hundred years."*—In vain do politicians go about to celebrate the wiſdom of a ſtate of ſociety, which deſtroys the nobleſt fruit and production of nature: It muſt be eſſentially, and fundamentally bad. The ſureſt proof of the proſperity of any country, is a rapid increaſe of the people.

* Smith's wealth of nations, Vol. I. 94.

CHAP.

CHAP. XVII.

STATE OF SOCIETY.—*Freedom destroyed in some Countries by the State of Society, produced by the Settlement of America, the Cause and Effect of the American War—cannot be preserved by Government, depends on the State and Condition of the People.*

THE employments, the government, the religion, the customs, habits, manners, and condition of the people, constitute their state of society. In the state of society which had taken place in America, the foundations of her freedom were laid, long before the nations of Europe had any suspicion of what was taking place in the minds of men.—Conquest, religion, law, custom, habits, and manners, confirmed by military power, had established a state of society in Europe, in which the rights of men were obliterated and excluded. The property and power of a nation had passed into the hands of the sovereign, nobility and church. The body of the people were without property, or any chance or prospect of securing any; and without education or knowledge to form them to any rational principles and sentiments. Without property and without principle, they were of little or no consequence, in the view of government. When the contest was whether the king or the commons should gain more power, the meaning was not at all whether the body of the people should be raised out of their degraded

ſtate of ignorance, poverty, and inſignificance; but whether that part of the nation, which had acquired much wealth and property, ſhould have more influence in the affairs of government. The body of the people were eſteemed as mere mob, wholly inadequate and unfit for the affairs of government. The king, lords, and commons, were agreed in viewing the maſs of the people in this light. And as they had neither property, principle, or knowledge, it is probable that the opinion which their rulers formed of them, was but too juſt.

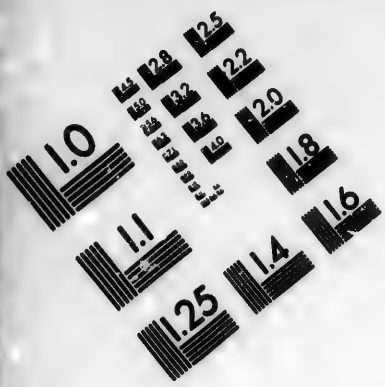
Such had been the ſtate of ſociety in Europe, for many centuries. Time, law, religion, and power, had combined with every other circumſtance, to degrade the people; and to reduce the body of them to the loweſt ſtate of abaſement, and contempt.—In a ſtate of ſociety, in which every thing had ſo long deviated from the deſign and law of nature, it could not be, but that the rights of men ſhould be loſt; and the idea of them had nearly periſhed. Nothing was to be ſeen but one general degradation of the body of the people, and an unnatural and exceſſive exaltation of thoſe who had acquired power; every where tending to corrupt both, and to give the moſt unfavourable idea of the capacity of the former, and of the diſpoſition of the latter. It required the daring ſpirit of Milton and Sydney, and the abilities of Locke and Monteſquieu, to diſcover the rights of men, when men themſelves for many centuries, had made the ſtate of ſociety wholly oppoſite and contrary to the ſtate of nature. The philoſopher had to deduce them from the creation, and nature of man. In this inquiry, the progreſs, like diſcoveries in other ſciences, was extremely ſlow and precarious. Intereſt and reputation were againſt the progreſs of this kind of knowledge. The law, the church, and the government, were not only oppoſed to it, but they puniſhed the diſcoverers and writers, by whip-

ping,

pling, impriſonments, heavy fines, and death. None but the greateſt and moſt virtuous of men, were either able to inveſtigate, or would dare to aſſert what belonged to the nature of man, and what was derived from the nature of ſociety.

In America, every thing had aſſumed a different tendency and operation. The firſt ſettlers of the colonies, had ſuffered ſeverely under the bigotry and intolerance of eccleſiaſtical power in the days of Elizabeth, James, and Charles the . They had not at firſt, any more knowledge of the of human nature than their neighbours, and they were as far from the ſpirit of candour and toleration. But when they were expoſed to ſevere ſufferings on account of their religion, they were placed in a ſituation, in which their *feelings* would perform for them, what their reaſon had not acquired ſufficient force to effect. They felt, and of courſe ſaw, that there was no reaſon or righteouſneſs in the puniſhments which were inflicted upon them, on account of their religion. In ſuch a ſituation, truth occurred to them every moment; and their ſituation and ſufferings effectually taught them, what were the rights of men. They could at once diſcern and underſtand the voice of nature, which had no effect upon thoſe in power, and probably would have had more upon them, had they been in the ſame ſtate.—With theſe views they came into America. Situation and employment immediately operated to enlarge and confirm the ſentiments which their ſufferings had firſt produced. The wilderneſs was to be cleared up, habitations were to be built, the means of living were to be procured: Theſe occupations were ſo neceſſary, that they became unavoidable; and every man who did not mean to periſh, was obliged to engage in them. This ſimilarity of ſituation and employment, produced a ſimilarity of ſtate and condition, at that time, unknown to the reſt of the world: The

effects



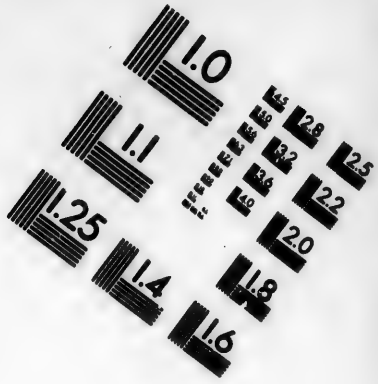
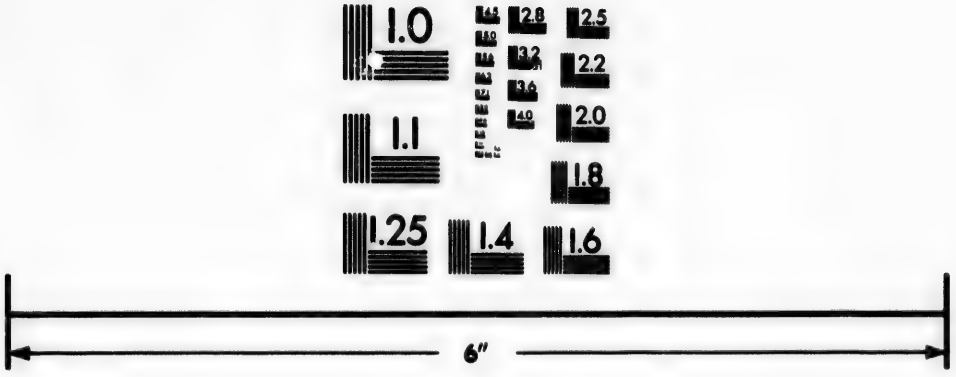


IMAGE EVALUATION TEST TARGET (MT-3)



Photographic Sciences Corporation

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

2.8
3.2
3.6
2.5
2.2
2.0
1.8
1.1
1.0

effects of which the first settlers did not at all comprehend, themselves. The bigger part of them reverenced monarchy, as a sacred institution of heaven; but they felt at the same time that the honours and distinctions it produced, were of no avail to them. To be wise, strong, industrious, and healthy, to have rulers, judges, and generals, the distinctions which nature urged, they found to be of the highest importance. But to be called a duke, an earl, or a marquis, the distinctions which society had set up against nature, they found could be of no importance to them, and denoted nothing valuable in themselves. Nothing was left for them but to pursue the line and course of nature, which was that of utility and safety. And this could produce nothing but similarity of situation, rights, privileges, and freedom. Every new settlement, was a confirmation of the same state of society; and notwithstanding the perpetual interference of royal authority, every thing operated to produce that natural, easy, independent equality and spirit, in which the body of the people were found, when the American war came on. In such circumstances, the common farmer in America had a more comprehensive view of his rights and privileges, than the speculative philosopher of Europe, ever could have of the subject. The one was in a situation, where the language, dictates, and designs of nature, were perpetually occurring to his view; the other was in a situation, where every thing in society had deviated from nature, and with infinite labour and study, the first principles, must be deduced from theory and reasoning. Learning their principles from the state of society in America, Paine, and other writers upon American politics, met with amazing success. Not because they taught the people principles, which they did not before understand; but because they placed the principles which they had learned of them, in a very clear and strik-

ing

ing light, on a most critical and important occasion.

When the war came on, the leaders of mobs, and the mobs which they created, appeared in their true light: The former sunk into contempt, and the latter were soon suppressed. The enlightened, virtuous, substantial body of unconnected citizens, took up the business. Unacquainted with the state of society here, Europe sat with wonder, the spirit of freedom unconquerable in America. Rising, the more it suffered, the more superior to all the attempts of the wisest and most powerful nation of Europe. The ministers of Britain at that time, were men of great eminence and abilities, in managing business upon the European system. But they had no ideas of the state of things in America, or of a system in which nature and society had combined to produce and to preserve freedom. What they called rebellion, was only the tendency of nature and society towards freedom, made more active, by their oppression. Mistaking the cause, they perpetually mistook in their measures: And what could not have happened from any other cause but total mistake, it was their singular ill fortune never to judge right, either through design, or by mistake. The revolt was the natural effect of things. It did not partake of the nature of miracles, of the extravagant spirit of chivalry, or of the madness of religious or political enthusiasm. It was nothing more than the natural effect of natural causes. Freedom, for a century and an half, had been the constant product and effect of the state of society in the British colonies. And when the decisive trial was to be made, this state of society produced its natural effect—a firm, steady, unrelenting and unceasing contest, which could not exist at any other period, but the total destruction, or complete establishment of freedom.

No

No other cause but that which first produced the freedom of America, will prove sufficient to support and preserve it. It is in the state of society that civil freedom has its origin, and support. The effect can never be more pure or perfect, than the causes from whence it arises; and all those causes terminate in the state and condition of the people. The form of government by which the public business is to be done, a bill of rights to ascertain the just claims of the people, a constitution to direct and restrain the legislature, a code of laws to guide and direct the executive authority, are matters of high importance to any people; and are justly esteemed among the wisest productions, of ancient or modern times. But no people ought to expect that any thing of this nature will avail to secure, or to perpetuate their liberties. Such things are consequences, not the causes, the evidences, not the origin of the liberties of the people. They derive their whole authority and force, from the public sentiment; and are of no further avail to secure the liberties of the people, than as they tend to express, to form, and to preserve the public opinion. If this alters and changes, any bill of rights, any constitution or form of government, and law, may easily be set aside, be changed, or be made of none effect. For it will never be dangerous for the government of any people, to make any alterations or changes, which the public opinion will either allow, justify, or support. Nor ought any people to expect, that their legislators or governors will be able to preserve their liberties, for a long period of time. Any body of men who enjoy the powers and profits of public employments, will unavoidably wish to have those profits and powers increased. The difficulties they will meet with in the execution of their office, the unreasonable opposition that will be made by many to their wisest and best measures, and the constant attempts

tempts to displace them, by those whose only aim and wish is to succeed them; such things, joined with a natural love of power and profit, will not fail to convince all men in public employments, that it would be best for the public to put more confidence and power in them. While they thus wish and aim to increase and add strength to their own powers and emoluments, those powers and emoluments will be called the powers and the dignity of government. It may be doubted whether men are much to blame, for wishing and aiming at that, which their situation and employment naturally leads to. The effect seems to be universal. It has ever been the case that government has had an universal tendency, to increase its own powers, revenues, and influence. No people ought to expect that things will have a different tendency among them. That men will cease to be men, or become a more pure and perfect order of beings, because they have the powers of government committed to them.

Upon what then can the people depend, for the support and preservation of their rights and freedom? Upon no beings or precautions under heaven, but themselves. The spirit of liberty is a living principle. It lives in the minds, principles, and sentiments of the people. It lives in their industry, virtue, and public sentiment: Or rather it is produced, preserved, and kept alive, by the state of society. If the body of the people shall lose their property, their knowledge, and their virtue, their greatest and most valuable blessings are lost at the same time. With the loss of these, public sentiments will be corrupted: With the corruption of the public sentiment, bills of rights, constitutions written upon paper and all the volumes of written law, will lose their force, and utility. Their government will immediately begin to change: And when the people have themselves lost the cause, the principle, and the spirit

it

it of freedom, they will no longer be capable of a free government. They are better suited for the restraints of aristocracy, or what is far better, for the regulations of monarchy. The constitutions and the laws of such a people, will do more preserve their freedom, than the tombs and the coffins of Montesquieu and Franklin, will retain their abilities and virtues.

Ye people of the United States of America, behold how the precarious foundation upon which ye hold your liberties. They rest not upon things written upon paper, nor upon the virtues, the vices, or the designs of other men, but they depend upon yourselves; upon your maintaining your property, your knowledge, and your virtues. Nature and society have joined to produce, and to establish freedom in America. You are now in the full possession of all your natural and civil rights; under no restraints in acquiring knowledge, property, or the highest honours of your country; in the most rapid state of improvement and population; with perfect freedom to make further improvements in your own condition. In this state of society, every thing is adapted to promote the prosperity, the importance, and the improvement of the body of the people.—But nothing is so established among men, but that it may change and vary. If you should lose that spirit of industry, of economy, of knowledge, and of virtue, which led you to independence and to empire, then, but not until then, will you lose your freedom: Preserve your virtues, and your freedom will be perpetual!

APPENDIX.

APPENDIX.

No. I.

An Account of the Variation of the magnetic Needle, in the eastern States. CHAP. I. p. 16.

IN laying out lands in America, the direction of the lines, is generally taken by the *magnetic needle*. The instruments which have been generally used, are the Plain Table, or the Circumferenter, divided into degrees, and fitted with a magnetic needle of three or four inches radius. Had the greatest possible care been taken by able mathematicians, it would not have been possible for them, with such instruments, to have avoided many errors and mistakes. But to formerly the influence has the variation of the needle been known, or at all attended to. Many and great practical controversies and lawsuits have arisen from this cause. In many instances no data could be found, by which it was possible to come to a just decision; the variation of the magnetic needle, at the times when the contested lines were run, being unknown. On such occasions, the knowledge of the magnetic variations in the inland parts of America, is become a matter of great importance to the people; their interest and property in many cases, being much affected by it.

From the year 1302, the directive power of the magnet has been employed, with great success, in the affairs of navigation. But the first account that we have of any observed variation in its direction, was by *Columbus*, in the year 1492, in his first voyage to America. Until that time, philosophers uniformly believed that the pole of the magnet, exactly coincided with the pole of the earth; and they had no idea of any such thing, as a variation. Amidst the uncommon scenes of difficulty which opposed the views, and exercised the genius of the discoverer of America, when he had advanced two hundred leagues west of the Canary Islands, his compass began to shift it's place, and it was found not to point to the pole of the earth, or exactly north, but one degree to the west of that point. From that time the variation began to be observed, and became more and more known. For the last century and an half, mathematicians have made it a regular part of their business to observe it, in different parts of the earth; with the *annual* alterations that are constantly taking place.

In the year 1723, a very accurate observer, *G. Graham*, of London, discovered that the magnetic needle had a *diurnal*, as well

in an eastern direction. And it is now well known to philosophers that from about eight o'clock in the morning, the magnetic needle verges to the west, until about two o'clock in the afternoon. When it has attained its greatest westward variation, it gradually returns to the east, until about eight or nine o'clock in the evening; when it becomes stationary, until the next morning.—Tables expressive of this *diurnal* variation are become common, and are to be found in the transactions of all philosophical societies. Thus in the most regular state of the magnetic needle, it is constantly subject to two variations; an *annual*, and a *diurnal* one.

The effect of these variations are at all times such, that the magnetic needle can never give to the surveyor who follows its direction, a straight or an accurate line. And it ought not be used in all cases where the business requires great accuracy and precision. It is however hereby practicable in America, to substitute any thing better, in the room of it: Most of the lines which have been already run by surveyors, were run by the needle; this is much the most convenient instrument that can be carried, or used in the woods; the expense of running lines any other way, would be too great for individuals to bear; and the surveyors are not qualified to run them by the true meridian. For such reasons it is probable that the magnetic needle will still continue to be the instrument by which the lines will be run, and the townships be laid out in America.—We must therefore endeavour to provide the best remedy we can, for an error or evil, which we cannot easily remove. The best remedy which the case admits of, is an accurate observation of the variation of the magnetic needle at the time when divisional lines are run. This should be done by able mathematicians, and in as many places in a State, as may be. Such observations will afford the best direction surveyors will be able to find, to enable them to determine what is the real or true direction of their magnetic lines.—It is with this view, that the following Table is published.

Magnetic

Magnetic Observations made in Canada, and the eastern parts of America.

Place.	Time.	Variation.	Observer.
Quebec.	1649	16° 0' W	
	1700	8 30	
	1708	8 30	
Quebec.	1733	8 30	
Lake Rivers.	1760	8 30	
Montreal.	1760	8 30	
	1765	8 24	
North line of Vermont, as settled at Canada.	1767		
Burlington.	March 5, 1765	7 15	
Retford.	April 17, 1780	7 0	
Pownal.	Sept. 30, 1766	7 15	
Penobscot bay.			
Pownal.	July 18, 1761	6 0	
Falmouth.	1764	6 15	
Kittery point.	1771	7 18	
Portsmouth.	1772	7 48	
Hinsdale.	1772	8 0	
Newburyport.	August 6, 1761	7 12	
Beverly.	August 8, 1781	7 0	
Cambridge.	1732	7 0	
	1737	7 20	
	1738	7 0	
	June 20, 1758	6 [illegible]	
	June 21, 1758	6 [illegible]	
Wrentham, at Angle Tree.	April 7, 1784	7 24	
Hartford, corner of Rhode-Island.	1741	7 30	
Providence.	June 1760	8 30	
Hartford, in Connecticut.	Sept. 18, 1768	5 25	
Northeast corner of the Ohio.	Sept. 25, 1788	7 3	
Newport.	1588	8 45	
	1724	7 20	
	Sept. 18, 1750	6 22	

No. II.

Observations on the Change of Climate in Europe, and other Places.

Art. IV.

THE change of climate which has taken place in Northamerica, has been a matter of constant observation and experience. It seems to be the universal opinion of historians and philosophers, that there has been a more remarkable change of climate throughout all Europe. There are several phenomena from which it may be shown with much certainty, that this has been the case in several places.

In the land of *Palestine*, about the latitude of 30 or 31 degrees, north, the author of the book of Job makes use of such language as this, "Hast thou entered into the treasures of the snow? Or hast thou seen the treasures of the hail?—Out of whose womb came the ice?—And the hoary frost of heaven, who hath gendered it?—*The waters are hid as with a stone, and the face of the deep is frozen.*" Job xxxviii. 22, 30. These are wholly the words of Moses. And they are expressive of that degree of cold, in which the surface of water is so strongly frozen as to contract its fluidity, and resemble the consistence and hardness of stone. The degree of heat in which this effect takes place in rivers, ponds, and large collections of water, I have generally found to be about 25 degrees of Farenheit's thermometer; with a duration of a week or ten days. We shall not therefore be far from the truth, if we conclude that the extremity of the cold in the land of *Midian*, could not have been less than 25 degrees, in the days of Moses. And that such a cold was of some days continuance. Such was the degree and the effect of the cold in the land of the Midianites, about 3300 years ago.

In the writings of David we have also a description of what occurred in a future season. "He giveth snow like wool. He scattereth the hoar frost like ashes. *He casteth forth his ice like morsels: who can stand before his cold?*" Psalm cxlvii. 16, 17. This account must have been written at least 2800 years ago. The language of the text and context, plainly expresses the effect which the cold had on the feelings of men in that warm climate. But the account which he gives of the appearance and form of the ice, denotes a less degree of cold than what took place in the days of Moses. When the degree of heat is but 31 degrees of Farenheit's thermometer, the ice may appear to be cast into the form of morsels and crystals. And this seems to have been the greatest degree of consistence, extent, and hardness, in which the poet had either seen it, or conceived of it.—It should seem therefore that from the time of Moses to David, the cold has abated in the land of *Palestine*: That four centuries before, it hid the waters as with a stone, and caused the face of the deep to be frozen:

Greek; But that now it only cut out the ice like morsels or crystals. The difference in the degree of cold necessary to produce these effects, is about 6 degrees.

We have here an account of the climate in the land of Palestine, so far back as 28 and 33 centuries. Instead of treasures of snow, hail, and ice; whereas deeps and subterranean lakes are found before the inhabitants of that country mentioned as being of a dry climate; in which frosts and ice are never seen. We have also an account of any meteorological observations made in the places, where Moses and David lived. What might probably suit the latitude of those places, may be in others of a similar latitude and situation. We may therefore make an approximation, that have been made at Grand Cairo, is the most applicable, and the best which we can find, to give us an idea of the temperature of the winter in those parts of the globe. Grand Cairo lies in the latitude of 30° north. According to Mr. Nielbuhr's observations made there in the years 1761 and 1762, the mean heat of those years was 70°, &c. The mean heat in the month of January was 57° that of February 60°. It has been seldom that the mean heat of the coldest week in the winter, fallen below the mean temperature of the whole month. This will give 57 degrees, as the mean temperature of the coldest week in the winter at Grand Cairo. It is believed to be greatly different from the temperature of the winters in the land of Palestine; from the very different temperature of the climate, as evidenced by the thermometer, in the situations which that latter place is in the severity of the winters in that country, since the time of Moses.

The climate in Italy is also found to be very different now, from what it was 1700 years ago. Virgil, the celebrated poet, was distinguished above the knowledge in agriculture. In his georgics he is frequently giving advice for the security of cattle, against the dangerous effects of ice and snow. His directions were designed for the country round about Naples, his native place, in the latitude of 41°. Notwithstanding Calabria is the most southern part of Italy, the effects of the freezing of the rivers, as are there described, are contrary to the expected. Pliny, Juvenal, and other writers in the first and second centuries, speak of ice and snow as what was common in Italy. One of these writers, Varro, who is chiefly employed in giving directions how to raise corn, when the water is covered with ice. The degree of cold necessary to produce these effects, is about 16 degrees. From the meteorological observations which were made at Rome in the years 1782 and 1783, it appears that the mean heat in the month of January at that place, is now 42 degrees; and that the mean heat of the coldest week in the winter was

was 42 degrees;* 17 degrees greater than that, in which the permanent freezing of navigation takes place. The change of climate therefore in Italy, during the last 2000 centuries, cannot have been less than 17 degrees, even from the inaccuracy of the ancient geometers in many minute particulars.

A similar change has taken place in the country round Constantinople, and in the Euxine and Black Sea. They are called from the words of Ovid, this subterranean sea was formerly in Europe, but the Roman emperors have added the country of the Getæ to their dominions. The poet, from his own experience, describes it as frozen, about the middle of the first century. He informs us that he saw the Euxine sea covered with ice. That he walked upon the ice, and that men and carriages passed over it. He goes further, and adds, that when he called for wine in a severe winter, it was given to him in a state of congelation. And that the fragments were placed on the table, and devoured during the summer season. Pomponius Mela says that in the days of Constantine, the Danube, by ancient custom, was frozen over. And that in the year 401, the Euxine sea was covered with ice, to the depth of several cubits, so that the Goths passed over it in carriages, without any impression or alteration to the ice. Such were the severe winters of that climate.

But nothing could be more unexpected and extraordinary, than to find the sea frozen over in 1684, the Turks were greatly astonished at the appearance of ice at Constantinople. And in all the adjacent country, instead of a frozen sea, frozen rivers, and perpetual snow, they have now a most moderate warm climate, one of the most fertile, and delightful that is to be found upon the face of the earth. So far as we can judge from the general phenomena, the change of the climate there has been chiefly owing to what has taken place in Italy.

The same alteration has been observed upon the Alps and Appennines. Historians who have described the passage of Hannibal and Cæsar into Italy, from France, Switzerland, and Germany. The march of the Carthaginian army over those mountains, was one of the most memorable exploits of antiquity. By their account of it, Italy and Poland must almost every year, be undergoing the extreme difficulties and sufferings which arose from the severe cold, [illegible] which are now scarcely felt, or entirely passed over. Armies have frequently crossed those mountains, without any considerable sufferings from the cold of the climate.†

The change of climate has been still more remarkable in Germany. Two centuries ago, the Rhine was frozen over with certainty. By the account of Diodorus Siculus, "The great rivers are

* Ephem. Soc. Meteor. Palat. Observationes Romanæ, Tom. II. & III.
† Phil. Trans. Vol. LVIII. for 1768, p. 214.

which covered the Roman provinces, the Rhine and the Danube, were frequently frozen over, and capable of supporting the most enormous weights. The barbarians also often chose that severe season for their incursions, unexpected, without apprehension or danger, their numerous armies, their cavalry, and their heavy waggons over the firm and solid bridge. Modern wars have not produced an instance of a like accident. The evidence of history, which naturally follows the course of the earth, declares the mild temper of the air, and of a constitution that supports the most rigorous degrees of intense cold. For it is found, on the coast of Sweden, in the ten degrees of the polar latitude, to be delightful to the Russians, Esthonians, and Siberians. But of peaches or common fruits, it will scarcely multiply in any country to the south of the Baltic. In the time of Cæsar, the reindeer, the elk, and the wild bull, were a native of the Hercynian forest, which then overshadowed a great part of Germany and Poland.*

These accounts will serve to form some general idea of the climate of Germany at that time. The freezing of the Rhine and the Danube, mentioned, as an event which usually is to be expected, what the historian always dreads to take place in the severe season, seems to suggest a degree of cold, more certain and more intense than what we experience. The observation of the strength, firmness, and duration of the ice, during the whole winter equal in all its effects to that which takes place in the most cultivated parts of Northamerica. The rivers are there constantly frozen every winter. The inhabitants find by constant experience, that at that season of the year they can transport their heaviest effects, and the greatest burdens with more certainty, and convenience.—The mean heat of the winter in such places, is from 15 to 20 degrees. In such a case, the rivers and streams will be so constantly and deeply frozen, that the inhabitants find a certain and safe passage over in winter, over the rivers and lakes. This seems to have been very much the state of the ancient Germanic winter. From the observations which were made at Vienna, latitude 48° 12′ north, in the years 1775 and 1776, it appears that the mean heat there in the month of January was 32°,9; in February it was 36°,9. At Ratisbon, latitude 49° 0′ north, in the years 1781 and 1782, the mean heat in the month of January was found to be 30°,56; that of February 36°,16. At Mannheim, latitude 49° 29′ north, in the years 1781 and 1782, the mean heat in the month of January was 35°,09; in February it was 35°,8.† The mean of these, 31°,2, in January, and

* Gibbon's Roman History, Vol. I, P. 346.
† Ephem. Soc. Meteor. Palat. Tom. I, II, III, &c.

and 33°,16 in February, will accurately express the present temperature of the German winter upon the Danube and the Rhine.—The time when the barbarians began their inroads into the Roman provinces was about the year 400. According to this computation, the change of climate in Germany has been between 11 and 18 degrees, in 17 centuries.

The other influence mentioned by the historian, and which serves to mark the climate in Germany in the time of Cæsar, was the appearance of the reindeer. The warmest countries in which he now resides, are Sweden, Russia, and Lapland. From the observations made at Abo, latitude 60°—27′ north, from the year 1738 to 1762 the mean heat in the month of January, was found to be 19°,58; that of February was 21°,38. At Petersburg, latitude 59°—56′ north, from the year 1762 to 1778, the mean heat in January, was 19°,1 in February, the mean heat was 18°,46. The mean of these 14°,8 in January, and 18°,9 in February is the temperature of the winter in that part of the globe.* These are the warmest climates in which the reindeer does now subsist. It may therefore with much probability be inferred, that this was the temperature of the German winter in the days of Cæsar, 18 centuries ago. Hence the alteration of climate in Germany during that space of time, has been about 18 degrees. It seems to be a confirmation of the truth and propriety of these different methods of computation, that they both afford much the same result.

From these accounts it appears with a decisive evidence, that the climate, in the course of several centuries, has remarkably changed at Palestine, in Italy, around the Euxine sea, at the Alps, and throughout all Germany. Through all this vast extent of country, the climate is now become 16 or 17 degrees warmer than it was 18 centuries ago. The continent of America in similar latitudes, is still subject to a great degree of cold. If the meteorological observations which have been made at Williamsburg, Cambridge, Quebec, and Hudson's Bay in America, be compared with those which have been made at Algiers, Rome, Poictiers, and Solyskamski, places whose latitudes are nearly equal;† it will be found that the European continent is now 20 degrees warmer than that of America. Many inquiries and speculations have been proposed to account for this extreme cold of America. From the accounts which have been mentioned, it appears that 17 or 18 centuries ago, the continent of Europe instead of being

18

* Kirwan's climate.

		M. H.			M. H.
† Algiers	lat. 36°—49′	72°	Poictiers	lat. 46°—35′	53°,8
Rome	41°—54′	59°,5	Solyskamski	59°	32°,5

16 degrees warmer, was subject to a cold 4 or 5 degrees greater, than that which now takes place on the continent of America. The proper inquiries therefore seem to be, Whence is it that the European continent is become so much more mild and temperate than that of America?—Whether the latter will not in a course of time become equally warm and temperate as the former?—Whether the climates of both will not gradually become more equal, uniform, and moderate, than they now are?—And, Whether cultivation is sufficient to account for these changes? For whatever the cause may be, the fact seems to be certain, the heat of all that part of the earth, of which we have any ancient accounts, has been increasing from the earliest ages.

No. III.

A Dissertation on the Colours of Men, particularly on that of the Indians of America. CHAP. VIII. p. 197.

COLOURS OF MAN. ONE of the most curious phenomena that belongs to the natural history of man, is the *colour* with which he is marked. Every object which we behold, appears to be of some particular colour. In animals these colours are extremely various, different, and beautiful; and sometimes they appear to be variable. Man, like other animals, is distinguished both by a peculiarity, and by a variety of colour. In Europe, he appears white: In Africa, he is black: In America, his colour is red: In Asia, a variety of colours are to be found upon the human countenance. There are other shades and tinctures to be found in each quarter of the globe, besides those mentioned above: But those that have been mentioned are the most general and prevalent colours, under which men appear, in the four general divisions of the globe.

VARIETY OF COLOURS.—The most distinguishing, permanent, and general colours of the human species, and which are at the greatest extremes from each other, are black and white. Between these, or rather as different degrees and variations of them, are all the other colours of the human countenance: And they may be reduced to swarthy, red, copper, and brown.—*Black* is the colour of the Africans under the equator; of the inhabitants of Newguinea, and Newholland. A *swarthy* colour includes the Moors in the northern parts of Africa, and the Hottentots in the southern parts of it. *Red* distinguishes the Indians of Northamerica. The same, or perhaps more accurately a *copper colour* denotes the complexion of the Indians of Asia. *Brown* comprehends the Tartars, Persians,

fians, Arabs, Africans on the coaſt of the Mediterranean, and the Chineſe. The inhabitants of the iſlands in the Pacific Ocean, are alſo chiefly of this colour. Under this colour is comprehended all thoſe different ſhades, which are denoted by olive, cheſnut, and deep yellow. A leſs dark colour, or *brownish*, will beſt expreſs the complexion of the inhabitants in the ſouthern parts of Europe: The Sicilians, Abyſſinians, Spaniards, Turks; and alſo the Samoiedes, and Laplanders. *White* is the colour of moſt of the European nations; as Swedes, Ruſſians, Danes, Engliſh, Germans, Poles, &c. Kabardinſki, and Georgians. It is obſervable that all theſe colours are included between the two extremes; or rather they are different degrees or variations of black and white.

CHANGE OF COLOUR. A change of colour is always produced by the marriage or mixture of perſons of different complexions. Thus the offspring of the European and the negro, is of a yellow complexion; leſs white than the European, and leſs black than the negro; or rather of a dark cream colour. This race are numerous in ſome parts of America, and are called *Mulattoes*. The offspring of an European and an Indian is alſo of a cream colour; and more light than the mulattoe. Theſe are called among the Spaniards *Meſtigos*. The effect and operation of this change of the original colours, in the climate of America, is always in favour of the fairer complexions; and never approaches towards, or ends in the darker colour.—This change and alteration of colour, when it is left to its natural tendency and effect, is extremely ſlow and moderate in its operation; and it is not until after many years, that the full effect is produced. In the Spaniſh ſettlements, this mixed race has ſo multiplied as to form a conſiderable part of the inhabitants. And the ſeveral ſtages of variation in this race, with the gradual alteration of ſhade until it ends in the European complexion, have been well aſcertained, and are now perfectly well underſtood. Thoſe of the firſt generation are conſidered, and treated as negroes or Indians. In the third generation the Indian colour diſappears. It is not until the fifth deſcent that the deeper black of the negro is loſt. At the end of theſe different periods, the offspring can no longer be diſtinguiſhed from the European; but is conſidered as ſuch, and entitled to all their privileges.*—In this change of colour, produced by the moſt powerful of all natural cauſes, the mixture of perſons of different complexions; ſo gradual and ſlow is the operation, that the black muſt be ſubject to five diviſions, and the operation muſt be continued through five generations, before the colour is completely changed.

SEAT

* Voyage de Ulloa, I. 27. Robertſon's Hiſt. Amer. II. 369.

SEAT OF COLOUR.—That the different colours of the human species are seated in the skin is very apparent. The skin consists of three folds or coverings. The first is a very fine and transparent integument, and is white in people of all colours. The second is a cellular membrane, differently coloured in different persons. The third is also white. It is in the second of these, that the colour is seated. In black people, a very able anatomist* observes that the skin is much thicker and larger, than in white ones; the cellular membrane in the latter being a thin mucus, but in the former a thick membrane. In whites this seat of the colour is transparent, and either totally deprived of vessels, or only furnished with a very few; as the yellow colour appearing in jaundice vanishes on the cause of the disease being removed, which is not the case with stains from gunpowder, or similar causes.—Hence, he observes, three causes may be very readily assigned, which will operate to destroy the pelucidity of the skin, and give it a brown colour, and render it thicker. These are the heat of the sun, the access of air, and nastiness. And in general any thing that operates to produce or to destroy the pelucidity of the skin, will tend to vary and change the colour of the human body.

COLOUR CONNECTED WITH CLIMATE.—Among the causes which may affect the colour of the human body, it has been generally supposed that the influence of heat or climate, has a considerable effect. Concerning this influence or connexion between colour and climate, the following observations may be made.

1. Different colours are best suited to different climates. In all the plants and animals which are spread over the face of the earth, there is something by which they are peculiarly fitted to the climate and country, in which they are placed. One kind of vegetable requires a great degree of heat: Another flourishes the best in a temperate and cold country. It is the same with animals. Some are fitted for the heat of the torrid zone. Others require the severe cold of the frigid zone, to give them their greatest perfection. To all these animals, nature has given the proper clothing; which admits of no other variation than what the seasons of the year require.—Man is an animal made for every climate: Instead of being formed for the torrid or frigid zone, he can live, multiply, and arrive to his proper perfection, in any climate: And it is left to his own reason and industry to provide himself with such clothing, as his condition may require, in every climate through which he may pass; or in which he may sojourn. And yet there is something in different men, which qualifies

* Doctor Hunter.

qualifies and fits them for one climate better than for another; and that is, colour.—The man whose colour is black, is better suited to the extreme heat of the hottest climate, than any other of the human race. This has been long known and observed in the climates of America. The negroes of the Westindia islands, in the Spanish dominions, and in the states of Georgia, and South-carolina, are found to bear the extreme heat of the summer better than the white people. On the contrary, the negroes in the northern states of America are more tender than the white people, less able to bear the severity of our winters, and more apt to complain, suffer, and freeze with the cold.—The white men are the reverse of this. They bear the severe winters of Canada, and Russia, without much difficulty or suffering: But in an hot climate they become sickly, and fail sooner than the negroes. Several colonies of white people have subsisted in the torrid zone in America, more than two centuries: And yet they cannot bear the heat, like the original inhabitants, or like the negroes. The one is apparently best suited to a cold, and the other to a hot climate. And these differences are as apparently owing to their colour, for they do not appear to be connected with any other cause, or circumstance. Different colours therefore in the human species, are certainly best adapted, fixed and suited, to different climates.

2. There is a tendency in climate to produce the colour which it requires. Animal heat is derived but little from the sun, or from the atmosphere; but chiefly and mainly from original constitution. The design of covering and clothing, is to detain and preserve the heat of the animal body, in its natural situation, degree, and quantity; and to prevent an extreme waste or dispersion of it. Black readily receives and absorbs the heat of the animal body; and in this way, tends to exhaust and disperse it. White reflects and repels the rays of light and heat more than any other colour, and thus prevents and opposes their passage; and in this way, tends to preserve and detain the constitutional heat of the animal body. Hence the covering, which nature has assigned to the earth in cold climates, is snow: By its colour it becomes best of all adapted to prevent the heat from flowing out of the earth into the atmosphere. And hence the covering of most animals in the severest season, and country, is generally white, the colour which most of all preserves the heat of the animal body, and prevents its flowing out. In conformity to the same law of nature, many animals change their colour at the approach of winter, and from black, brown, or grey, become white. This is the case with the rabbits, foxes, and bears, &c. at Hudson's bay, Russia, and Siberia. From the darker colours which they bear in summer, they turn white at the approach of winter, and remain so, until the return of spring.

In

In such cases, climate appears to have a powerful and a sudden operation, to produce the colours it acquires.

The change of colour in man, is more slow and gradual. It is however certain and apparent. The white man who are much exposed to the heat and rays of the sun, and to the influence of the wind, in hot seasons lose their whiteness, and become brown or red. The inhabitants of Europe when they settle in Newspain or in the Westindia islands, soon lose their whiteness, and become of a brownish yellow. The Europeans who reside long in the Eastindies, become of the same cream coloured complexion. We have an accurate account of the effects produced by climate in Southamerica, by Dr. Mitchell; "The Spaniards who have inhabited America under the torrid zone for any considerable time, are become as dark coloured as our native Indians of Virginia, of which I myself have been a witness."* An account from Africa, is equally authentic and accurate, "There are several other small Portuguese settlements, and one of some note at Mitomba, a river in Sierra Leon. The people here called *Portuguese*, are principally persons bred from a mixture of the first Portuguese discoverers with the natives, and now become, in their complexion, and woolly quality of their hair, perfect negroes, retaining however, a smattering of the Portuguese language."† Here the operation of mixture by marriage, is determined by climate in favour of the African colour. There are similar accounts of the complexion of the Portuguese, who settled at Senegal in 1400; and of those who are settled on the coast of Congo. The varying complexion of the Jews is also very remarkable. Descended from one stock, their religion has prevented their marrying with other people. In Britain and Germany, they are white. In France and Turkey, they are brown. In Spain and Portugal, their colour is swarthy. In Syria and Chaldea, the olive colour prevails; In Arabia and Egypt they are of a tawny or copper colour.‡ Among every nation they seem to partake of the colour of the climate. And one of them, Tudela, relates that his countrymen in Abyssinia, have acquired the dark complexion of the original natives.

It is observable that all these changes are from a light, to a more dark complexion. Similar changes have not been observed in the negroes, that have been brought into the temperate climates of America. It should seem therefore that the transition is easier from white to black, than from black to white; or that the negro colour is the most deeply impressed of any; or that heat has a much more sudden and powerful effect than cold. It ought however to be observed that it is only in white and fair complexions,

* Phil. Transf. No. 474.

† Account of the trade of Gambia to Africa, by an African merchant.

‡ Buffon Nat. Hist. Vol. III.

complexions, that these changes of colour would soon become visible, or apparent to common observation. In a dark or black countenance, small and gradual variations of shade would not be observed. It would not be until the negro had lost much of his former colour, that the change would be generally noticed.—But I much suspect that there is something more curious in this subject, than has been imagined: That some of the colours of the human countenance, are in their own nature, colours which are less changeable than others. It seems to be universally the case, that the black produced by scorching, or by an intense heat, is the most durable of any colour whatever: And that white is more soon and easily sullied, and changed, than any of the other colours, with which any object is marked.

3. It seems to be a confirmation of these remarks, that the colours of men in different climates, are in fact such, as those climates seem to require. Under the equator the darkest shade, perfect black takes place. The negro of Africa is placed in the most intense heat, that takes place on this globe; and the colour of the negro is the deepest and darkest black, that any where appears on the human countenance. Advancing from the equator towards the pole, the colour of the human species acquires a complexion more and more light; until having passed through all the intermediate gradations of shade, it terminates in the whiteness of a temperate and cold climate.—There are indeed variations and exceptions from this, and from every other general law of nature. Intermixtures of different nations, migration, differences in food, disease, cleanliness, wealth, and many other local circumstances and causes, will produce these. As such variations are not agreeable to any general law of nature, they are neither evidences of, or objections to such laws; but derive their origin from local and particular causes.—But it is impossible not to discern the general regularity, tendency, and effect of the laws of nature, respecting climate and colour. The most intense black, is the general colour of man in the hottest part of the globe. Where the heat is considerably abated, the black abates too, and the colour becomes swarthy. To this succeeds the red or copper colour of the east and west Indians; suited to that part of Asia, where the Indians have been long fixed and permanently settled. The next gradation is brown, comprehending the olive, and dark yellow. A lighter shade, or a brown approaching nearer to white, distinguisheth a climate still more temperate. The whole terminates in the coldness, and in the whiteness of the European and northern nations; beyond which nature has not proceeded. And where a country is of great extent, as India, and China, the colour of the same people is dark in the southern, and more fair in the northern parts. Whatever particular exceptions and deviations may be found, the general Law of nature respecting

colour,

colour, is marked with as much regularity, uniformity, design, and order, as any other law of nature, which applies to the vegetable or animal world.

4. This operation and effect of climate must be extremely gradual and slow. Whatever those causes are which have served to form and fix the colours of men, they are causes which have been in operation, from the beginning of the creation of God. If there were any differences in the natural constitutions of men, so as to form what has been called different races, those differences must have been original; and therefore as ancient as those supposed races of men. If the effect has been produced by climate, this cause must have been operating upon nations, ever since their residence became fixed in any particular part of the earth. The same remark will apply to any other supposed cause. Be it what it may, upon every nation whose residence has been fixed, it must have been operating ever since their situation became established. With regard then to all those nations which have long resided in the same part of the globe, their colours must be viewed as the effect of causes, which have been in operation either from the beginning of the creation, or from the time when they began to reside in their present situations, or countries.—What then ought to be expected, if any race of men whose colour was already formed, should be removed to a country, where the tendency of climate was to reverse the former effects, and change the colour which had been long fixed?—Could it be expected that the power of climate to change a colour long formed and fixed, could be exerted in less time than it had required to produce and to establish it?—Would it require less time to remove an established colour, and to produce a new one, than it did to produce and fix the first? So far as we can derive any information from the ordinary course of nature, we cannot conceive that the colour of the negro, could be changed into that of the white man, in a less period of time, than it had taken, to produce and establish that colour at first. It is much more probable, that a longer period of time would be necessary to eradicate the first, and produce the second, than was requisite to form the complexion at first.—Those then that mean to inquire carefully into the operations and effects of nature, must put on the patience of the antiquarian, and learn to compute time with the astronomers. The impatience of many leads them to expect that climate should undo that, in three or four generations, which nature has been constantly at work to effect, from her first origin until now.

I will venture to propose a conjectural estimation, not because I think it approaches very near to certainty or decision, but because I cannot find any thing upon the subject, that has a greater appearance of probability. The most powerful of all the causes, which have been found to change the complexion of man, is that of mixture by marriage. In the negro colour, this requires five

generations,

generations, and five divisions, before the African blackness is loſt in the European whiteneſs: In the leſs dark complexion of the Indian, it requires three generations, and three divisions, to produce the ſame effect. The time of one of theſe generations may be eſtimated at about twenty five years. The time then which nature requires to effect the change of colour from this cauſe, would be one hundred and twenty five years, for the negro. A thirty ſecond part of the whole colour, upon this ſuppoſition is done away by ſome other cauſe, ſay that of climate. If the whole effect had been produced by climate, and in this proportion, the time neceſſary to have completed the effect would have been four thouſand years. By the ſame method of conjectural eſtimation, the time neceſſary to reduce the Indian to the European colour, would be ſix hundred years.—The difficulty and uncertainty attending this method of forming an eſtimate, is not that it can give the period of time too long, but that it aſſumes what cannot be aſcertained by obſervation. It is not, and probably cannot be made certain by obſervation, that a thirty ſecond part of the negro colour is done away by climate, or that it is done away at all, when the negro complexion is ſuppoſed to be completely changed. It is not probable that if a thirty ſecond part of the dark colour remained, it could be readily diſtinguiſhed by the eye.—But uncertain as the data are, they are ſufficient to ſhow that the operation of climate, in any view in which the matter can be conſidered, is extremely gradual and ſlow. But

5. The influence of climate, whatever it is, may be increaſed, or it may be retarded, by the operation of other cauſes. The colour of the ſkin may be affected and changed by other cauſes, as well as by heat and cold. If there be any thing in the common method of living, in being conſtantly expoſed to the ſun and wind, in the uſe of paint and oil, or in an habitual cleanlineſs or filthineſs, that tends to darken, or to render the complexion more fair; this, may operate either with or againſt the influence of climate, according as the nature and tendency of ſuch cuſtom or practice may be. And we ought not to aſcribe that to, or make that any objection to the influence of climate, which may be derived from other cauſes. Thus in Greenland, the influence of climate is in favour of a fair and white complexion. But in the conſtant application of greaſe, oil, and filthineſs, to the human body, there is another and a more powerful cauſe to effect its colour, than climate; and which, acting in conſtant oppoſition to it, gives to the countenance a ſallow or dirty olive complexion. Such cauſes may act with a force and power, equal or ſuperiour to that of climate; but they are not equally permanent, univerſal, or invariable.—There is no error more common, or more apt to deceive us in contemplating the natural hiſtory of man, than to aſcribe that to one cauſe, which is derived from or

produced

produced by the joint operation of many. Whatever tends to render the skin more or less transparent, will affect the colour of the human species, as certainly as the climate in which they are placed.

COLOUR AND CLIMATE OF THE INDIANS OF AMERICA.—There is no subject in philosophy so well understood, but that a number of questions and inquiries may be proposed respecting it, which do not admit of a satisfactory or, complete answer. And this will always remain to be the case, because our knowledge of nature will never be equal or commensurate to the subject. But there is one inquiry arising here, which demands our careful attention: How does the climate and the colour of the Indians of America agree with this, or with any other supposed law of climate? The Indians were spread over the whole continent of America: They dwelt in every habitable climate from the equator to the pole: And they were of the same colour in every place. In the greatest heat under the equator, and in the severest climates of Canada and Hudson's bay, they were of the same brownish red.* This appears to be the proper Indian colour in every part and climate of America. Are the climates of America different from those of the other continent? Or whence is it that the connexion which takes place between climates and colour in the other parts of the globe, is not to be found among the Indians?—This curious phenomenon has occasioned much inquiry and speculation: Can the causes of it be found, in the observations which have been already mentioned?

1. The Indian colour is very evidently the mixture of black and red. The colour, which an intense heat produces, upon all bodies to which it is applied, is *black*: And it is as natural

* It has been customary to write in this language, but we are far from being certain that it is either accurate, or proper. It has been taken for granted, but it has never been examined, whether the Indian colour is the same in every part of America. An accurate and inquisitive observer, M. de la Pinto, who commanded for several years at Matogroffa, a Portuguese settlement in the interiour parts of Brasil, where the Indians are numerous, and not altered by their intercourse with the Europeans, noted a difference in their complexions: "They are all of a copper colour, with some diversity of shade, not in proportion to their distance from the equator, but according to the degree of elevation of the territory which they inhabit. Those who live in a high country are fairer than those in the marshy low lands on the coast."—Robertson's Hist. Amer. I. 460.—On the northwest part of the American continent, it has been found, that "the complexion of the Indians is lighter than that of the southern Indians, and some of their women have ruddy cheeks."—Morse's Geog. I. 99. 105. Edit. 1793.—Of the Indians of Paraguay we have this account: "They are generally of an olive complexion, some darker, others lighter, and some as white as the Spaniards."—Ibid. p. 84.

to expect it should have this effect upon the human body, as upon any other bodies. The colour which is produced upon the human body, by living much in the open air, exposed to the influence of the sun and wind, is *red*. The white men who live in such a situation, always contract this colour. That part of their bodies, which is exposed to the influence of the sun and wind, becomes of a reddish colour; or, as it is commonly expressed, they become tanned, or sun burnt; that is, they acquire a colour formed by a mixture of red and white.—This influence of the wind and sun, in producing the red complexion, is found to be much the same in summer and winter: The white man is manly as much, and as soon sunburnt in the winter, as in the summer. It seems therefore that the production of this red colour, does not depend upon climate, heat, or cold, but upon *habit*, the habit of living in the open air, and having the body exposed to the constant influence of the sun and wind.—The Indian colour then seems to have been formed by the mixture of two different colours, black and red; and to have been derived from two powerful causes, *climate* and *habit*. Causes distinct from one another, and the latter producing nearly the same effect in every climate.

This colour of the Indians was probably completely formed, when they first came into America. They were of the same colour in the Indians, and Southern Tartars in Asia; and as these must have been descended from them. Their colour therefore was completely formed and fixed, before they came into America. This colour seems to have been derived from the warm climate of Asia; and from the habit of living constantly exposed to the sun, and to the open air. The colour thus formed and fixed, they would naturally convey to their offspring. And as there were no other people with whom they could have any intercourse, there could be no change or alteration of colour, produced by a mixture of parents of different complexion. Their colour therefore must have been settled, and uniform. And the whole effect of population must have been to spread, propagate, and preserve it. The effect of climate then upon the Indian in America, would not be to produce and form his colour; but either to preserve, or to change it.

No part of the climate of America was sufficiently hot, to change it into an intense black. It is only in the most intense heats of the hottest climate, that the extreme black of the negro is formed. The climate of America under the line falls far short of this. "While the negro on the coast of Africa is scorched with unremitting heat, the inhabitant of Peru breathes an air equally mild and temperate, and is perpetually shaded under a canopy of gray clouds, which intercept the fierce beams of the sun."*

The

* Robertson's Hist. Amer. I. 256.

The climate in every part of the world now in America, is much more mild and temperate than the same latitude in Africa, or Asia. In a country where the hottest climate is so moderate, it is not to be supposed that the Indian colour should be changed into extreme black. No part of the climate was hot enough to produce this. And any small variation in the Indian countenance, would not be readily or easily discerned.

4. The change of colour most naturally to be expected, would be of the contrary kind, not to black, but to white, or into a lighter shade than what took place under the equator. If there be any influence or tendency in extreme cold to produce a fair and white complexion, this might have been expected; for there are no colder climates upon the face of the earth, than those of the northern parts of America.—But whatever might be the influence of the climate to produce such a complexion, the Indians made use of several certain and constant methods to prevent it. One, was their constant habit of living and wandering about in the woods, exposed to the full force of the winds and sun: Another, was their extreme and perpetual filth, and dirtiness: A third, was their habitual use of grease and paint. It was their universal custom to anoint and rub their bodies with the grease and oil of the bear, beaver, muskrat, and other animals; and to mix the grease with different kinds of paints, and gums. This practice was probably designed to protect the body against the extreme variations of heat, cold, and moisture, to which they were constantly exposed. Nor could they have provided any better defence against heat, cold, rain, and insects, than thus to cover their bodies with a glutinous kind of varnish. And in doing this, they took a sure and a certain method, to fix and preserve their colour from any approaches to a white, or to a fair complexion. When extreme dirtiness was added to the grease, oil, and paint, neither climate or any other cause could produce a fair complexion, until these were removed and diseased. Thus in the Indian customs, and method of guarding his body against the effects of climate, the Indian himself was taking constant care that nothing should change the colour of his skin, or make it more transparent. But

5. Where these customs have been diseased, the Indian colour has been found to be changeable. It has never been decided whether the Indian colour is exactly the same in every part of America. No accurate comparisons have ever been made between the colour of the Indians in the hottest parts under the equator, and those in the remote regions of Canada and Hudson's bay. Their colours have never been compared to any accurate and known standard; and small variations in a dark complexion, would not be a matter of common observation.—But whether the Indian colour be the same in every part of America, or not, it is certainly more changeable, and not so deeply fixed, as that of

the

the negro. Many families of the Indian tribes are to be found in several of our towns. Some of these are at Capecod, and Rhodeisland: A considerable number of them, are at Natic, and Stockbridge, in Massachusetts. Their habits and manners of life are different from those of the Indians, who reside in the forests. They live in houses, have a fixed place of residence, and have much diffed the custom of paint and oils; and their complexion differs much from that of the tribes who yet remain in their ancient and original state. The reddish cast is abated. The tawny aspect appears more dull, pale, and clouded. The crimson mixture has disappeared, and they have approximated much nearer to the colour of the hunter among the whites, than the tribes who retain their ancient customs and habits. This change of colour in the Indians who have lived long among the whites, is apparent to common observation. And it is apparently derived from the change in their manners, customs, and habits. This change of the Indian complexion, clearly shows what has been the effect of customs, and habit.

6. In the northern parts of America, there are permanent phænomena, which will serve also to show what has been the effect of climate. The Esquimaux in the northern parts of America, are a people remarkably different from the Indians, which occupy the other parts of the continent. There is not much room to doubt, but that they were derived from the northwest parts of Europe; are the same people with the Greenlanders, Laplanders, Zemblans, and Samojeds; and like them, were descended from the Tartars in the east. Their descent then was probably from the same nation as the Indians. But while the Indian tribes have by custom, preserved their red complexion, the Esquimaux have acquired a fallow olive, or brownish colour; more inclining to the European whiteness, than to the brownish red of the American.—To what cause can we ascribe the lighter colour of this branch of the Tartar race, but to their more northerly and frozen situation? They have adopted the same customs and habits, as the Indians. They rub and anoint their bodies, with grease, the fat of the seal, and train oil; and are as filthy as the Indians. Not only so, but they drink the fat of the seal, and their train oil, and esteem it the most pleasant liquor. Can it be doubted what must be the effect upon their colour? It operates against the influence of climate, in that part of the earth where climate operates most powerfully to produce a white complexion. The influence of the two causes is divided, but the ballance is in favour of climate, and the European complexion. Thus in two very extensive and numerous kinds of men, derived from the same nation, climate, customs, and habit, in one part of America, have produced or preserved the dark crimson of the Indian; but in the most northerly and frozen parts of the continent, the same causes have established the fallow olive colour

of

of the Esquimaux, more resembling the European whiteness than the Indian red. Upon a careful attention then, to the colour and customs of the original inhabitants of America, the phænomena seem to confirm the general connexion which has taken place between climate and colour, in the various parts of the other hemisphere.

This part of the natural history of man, seems to be but very imperfectly understood. The great difficulty that attends it, is the want of ancient and accurate accounts. It does indeed seem to be pretty well determined, that the colour of the white man is easily and soon changed, to a dark complexion: And that the colour of the Indian is changeable, into a lighter complexion. But no relations which I have seen afford the same information, respecting the change of the African black. Nor can I find any phenomena or accounts which serve to ascertain the matter, and put it out of all doubt, whether there has been any change in the colour of the negroes, which have been brought into any part of America. Nor is it certain that any such apparent alteration of the negro colour, ought upon any hypothesis to have been expected, in the course of four or five generations. And yet, until some of these facts shall be ascertained, we can hardly expect that the laws of nature which apply to this subject, will be understood.—Impatient of the fatigue of inquiry, collecting and comparing phenomena, some philosophers, with great precipitation, have pretended to decide it by system. To solve all difficulties it has been declared by some, that there are different creations, and races of men: That the white man is one kind, the negro another, and the Indian a third, &c.—The business of making systems for nature, has seldom answered any other purpose, than to discover the presumption of those, who have made them. It has proved so in this case. If there had been as many local creations as there are individuals, this would not afford us any information, or enable us to advance one step, towards a solution of the problem respecting the colours of different men. Still the inquiries would remain, What is the seat of colour in these different men? Why do the rays of light appear of such different colours, upon the skins of the one, and the other? Why does one colour appear most common in an hot, and another colour prevail the most in a cold climate? And how is the change of colour produced by marriage and mixture?—Instead of amusing ourselves with theories that are attended with no evidence, and can be of no use, what is wanted in this subject, is careful and accurate observations. These will indeed require a long course of time, and abilities very different from those, which decide by metaphisical disputes and speculations. But it is the only method, in which we have any reason to expect our knowledge of this subject will be promoted.

No. IV.

The Declaration and Petition of the Inhabitants of the Newhampshire Grants to Congress, announcing the District to be a Free and Independent State. Chap. IX. p. 233.

To the Honourable the CONTINENTAL CONGRESS.

THE declaration and petition of that part of Northamerica, situate south of Canada line, west of Connecticut river, north of the Massachusetts bay, and east of a twenty mile line from Hudson's river, containing about one hundred and forty four townships, of the contents of six miles square, each granted your petitioners by the authority of Newhampshire, besides several grants made by the authority of Newyork, and a quantity of vacant land, humbly sheweth,

That your petitioners, by virtue of several grants made them by the authority aforesaid, have many years since, with their families, become actual settlers and inhabitants of the said described premises; by which it is now become a respectable frontier to three neighbouring states, and is of great importance to our common barrier Ticonderoga; as it has furnished the army there with much provisions; and can muster more than five thousand hardy soldiers, capable of bearing arms in defence of American liberty:

That shortly after your petitioners began their settlements, a party of land jobbers in the city and state of Newyork, began to claim the lands, and took measures to have them declared to be within that jurisdiction:

That on the fourth day of July, 1764, the king of Great-britain did pass an order in council, extending the jurisdiction of Newyork government to Connecticut river, in consequence of a representation made by the late Lieutenant-governor Colden, that for the convenience of trade, and administration of justice, the inhabitants were desirous of being annexed to that state:

That on this alteration of jurisdiction, the said Lieutenant-governor Colden did grant several tracts of land in the above described limits, to certain persons living in the state of Newyork, which were at that time in the actual possession of your petitioners; and under colour of the lawful authority of said state, did proceed against your petitioners, as lawless intruders upon the crown lands in their province. This produced an application to the king of Greatbritain from your petitioners, setting forth their claims under the government of Newhampshire, and the disturbance and interruption they had suffered from said post claimants, under Newyork. And on the 24th day of July, 1767, an order was passed at St. James's, prohibiting the governors of Newyork, for the time being

being, from granting any part of the described premises, on pain of incurring his highest displeasure. Nevertheless the same Lieutenantgovernor Colden, Governors Dunmore and Tryon, have each and every of them, in their respective turns of administration, presumed to violate the said royal order, by making several grants of the prohibited premises, and countenancing an actual invasion of your petitioners, by force of arms, to drive them off from their possessions.

Those violent proceedings, (with the solemn declaration of the supreme court of Newyork, that the charters, conveyances &c. of your petitioners' lands, were utterly null and void, on which they were founded, reduced your petitioners to the disagreeable necessity of taking up arms, as the only means left for the security of their possessions. The consequence of this step was the passing twelve acts of outlawry, by the legislature of Newyork, on the ninth day of March, 1774; which were not intended for the state in general, but only for part of the counties of Albany and Charlotte, viz. such parts thereof as are covered by the Newhampshire charters.

Your petitioners having had no representative in that assembly, when these acts were passed, they first came to the knowledge of them by public papers, in which they were inserted. By these, they were informed, that if three or more of them assembled together to oppose what said assembly called legal authority, that such as should be found assembled to the number of three or more, should be adjudged felons: And that in case they or any of them, should not surrender himself or themselves to certain officers appointed for the purpose of securing them after a warning of seventy days, that then it should be lawful for the respective judges of the supreme court of the province of Newyork, to award execution of *Death*, the same as though he or they had been attainted before a proper court of judicatory. These laws were evidently calculated to intimidate your petitioners into a tame surrender of their rights, and such a state of vassalage, as would entail misery on their latest posterity.

It appears to your petitioners, then an infringement on their rights is still meditated by the state of Newyork; as we find that in their general convention at Harlem, the second day of August last, it was unanimously voted, "That all quitrents formerly due and owing to the crown of Greatbritain within this state, are now due and owing to this convention, or such future government as may hereafter be established in this state."

By a submission to the claims of Newyork, your petitioners would be subjected to the payment of two shillings and six pence sterling on every hundred acres annually; which, compared with the quitrents of Levingston's, Phillips's, and Rensselaer's

ſlear's manors, and many other enormous tracts in the beſt ſituations in the ſtate, would lay the moſt diſproportionate ſhare of the public expenſe on your petitioners, in all reſpects the leaſt able to bear it.

The convention of Newyork have now nearly completed a code of laws, for the future government of that ſtate; which, ſhould they be attempted to be put in execution, will ſubject your petitioners to the fatal neceſſity of oppoſing them by every means in their power.

When the declaration of the honourable the Continental Congreſs of the fourth of July laſt paſt, reached your petitioners, they communicated it throughout the whole of their diſtrict; and being properly apprized of the propoſed meeting, delegates from the ſeveral counties and towns in the diſtrict, deſcribed in the preamble to this petition, did meet at Weſtminſter in ſaid diſtrict, and after ſeveral adjournments for the purpoſe of forming themſelves into a diſtinct and ſeparate ſtate, did make and publiſh a Declaration, "that they would at all times thereafter conſider themſelves as a free and independent ſtate, capable of regulating their own internal police, in all and every reſpect whatſoever; and that the people in the ſaid deſcribed diſtrict, have the ſole excluſive right of governing themſelves in ſuch a manner and form, as they in their wiſdom ſhould chooſe; not repugnant to any reſolves of the honourable the Continental Congreſs:" And for the mutual ſupport of each other in the maintenance of the freedom and independence of ſaid diſtrict or ſeparate ſtate, the ſaid delegates did jointly and ſeverally pledge themſelves to each other, by all the ties that are held ſacred among men, and reſolve and declare, that they were at all times ready, in conjunction with their brethren of the United States, to contribute their full proportion towards maintaining the preſent juſt war againſt the fleets and armies of Greatbritain.

To convey this declaration and reſolution to your honourable body, the grand repreſentative of the United States, were we (your more immediate petitioners) delegated by the united and unanimous voices of the repreſentatives of the whole body of the ſettlers on the deſcribed premiſes, in whoſe name and behalf, We humbly pray, that the ſaid declaration may be received, and the diſtrict deſcribed therein be ranked by your honours, among the free and independent American ſtates, and delegates therefrom admitted to ſeats in the grand Continental Congreſs, and your petitioners as in duty bound ſhall ever pray.

Newhampſhire Grants, Weſtminſter, 15*th*, Jan. 1777.

Signed by order, and in behalf of ſaid inhabitants.

JONAS FAY.
THOMAS CHITTENDEN.
HEMAN ALLEN.
REUBEN JONES.

No.

No. V.

The Remonſtrance of the Commiſſioners from Vermont *againſt the Proceedings of* Congreſs, *September 22, 1780.* CHAP. X. p. 256.

To the Honourable CONGRESS of the UNITED STATES of NORTH AMERICA.

THE Remonſtrance of Ira Allen and Stephen R. Bradley, commiſſioners from the free and independent ſtate of Vermont, appointed for the time being to attend on Congreſs.

With pleaſure they embrace this firſt opportunity to teſtify their thanks for the perſonal honour done them by Congreſs, in giving them an attendance though in a private capacity, with their honourable body: At the ſame time lament the neceſſity which obliges them to ſay, they can no longer ſit as idle ſpectators, without betraying the truſt repoſed in them, and doing violence to their feelings, to ſee partial modes purſued, plans adopted, ex parte evidence exhibited, which derives all its authority from the atteſtation of the party; paſſages of writings ſelected giving very falſe repreſentations of facts, to anſwer no other end but to prejudice your honourable body againſt the *State of Vermont*; thereby to intrigue and baffle a brave and meritorious people out of their rights and liberties. We can eaſily conceive the ſecretary's office of the ſtate of Newyork, may be converted into an inexhauſtible ſource to furniſh evidence to anſwer their purpoſe in the preſent diſpute.

Needleſs would it be for us to inform Congreſs, that by the mode of trial now adopted, the ſtate of Vermont can have no hearing without denying itſelf: And to cloſe with thoſe reſolutions, which we conceive our enemies have extorted from your honourable body, and on which the trial is now placed, would be in fact, taking upon ourſelves that humility and ſelf abaſement, as to loſe our political life, in order to find it.

We believe the wiſdom of Congreſs ſufficient to point out, that purſuing the preſent mode, is deviating from every principle of the laws of nature, or nations: For if the diſpute is between the ſtates claiming on the one part, and the ſtate of Vermont on the other, whether the latter be a ſtate *de jure*, as an independent juriſdiction *de facto*; they ought to be conſidered in the courſe of the diſpute, until the powers interpoſing, have determined whether the latter be an independent juriſdiction *de jure*, if not they of courſe ought to annihilate the juriſdiction *de facto*; but to annihilate the ſtate *de facto* in the firſt place, is ſummarily ending the diſpute; to deny the latter any independent juriſdiction *de facto*, is to deny there is any longer parties in the diſpute.

Again we conceive the means connected with the end, and upon no principle whatever can we juſtify, that either part ſhould eſtabliſh the modus, or rules to be purſued in determining diſputes, without confounding every idea of right and wrong.—In the preſent caſe, on the one part might the end as juſtly have been eſtabliſhed as the way and means to effect the end.

We are far from being willing thoſe brave and ſtrenuous efforts made by the ſtate of Vermont in the controverſy with Greatbritain, ſhould be buried by our graſping adverſaries, (thirſting after domination and prey) in the ſpecious pretext of riotouſly aſſuming government; and we thereby loſe all credit for the men and money we have expended.

Thus while we are neceſſitated to remonſtrate againſt the proceedings of Congreſs on the preſent mode, we are willing at the ſame time any equitable inquiry ſhould be made, the ſtate of Vermont being allowed equal privileges with the other ſtates in the diſpute.

And that the ſtate of Vermont might ſtand juſtified to your honorable body, and to the world, both as to her preſent and future conduct, we are induced, as well from principles of attachment to the American cauſe, as a regard we have for peace and harmony among the ſtates of America now at war with Greatbritain, to make the following propoſals, viz.:

1ſt. That the ſtate of Vermont will as ſoon as may be forward to the ſecretary of Congreſs, an atteſted return of all male perſons, liable to do duty agreeable to a militia act heretofore exhibited to Congreſs in a code of laws, entitled "The Laws of Vermont;" and the ſtate of Vermont ſhall for and during the preſent war with Greatbritain, from year to year furniſh an equal number of troops in the field in proportion to their numbers, as Congreſs ſhall eſtimate the quotas of the ſeveral United States in proportion to their numbers; which troops ſhall be clothed, quartered, and paid, by the ſtate of Vermont. And at the cloſe of the war, the diſpute ſhall be equitably ſettled by the mediation of ſovereign powers; and nothing herein contained, ſhall be conſtrued to take away the right any of the United States claim to have in or over the ſtate of Vermont: Or

2dly. We are willing to agree upon ſome one or more of the legiſlatures of the diſintereſted ſtates to interpoſe as mediators, and ſettle the diſpute: Or

3dly. We are willing Congreſs, being poſſeſſed of ſovereignty, ſhould interpoſe to prevent the effuſion of human blood: At the ſame time, we reprobate every idea of Congreſs ſitting as a court of judicature, to determine the diſpute by virtue of authority given them by the act or acts of the ſtate or ſtates that make but one party.

It

It gives us pungent grief that such an important cause at this juncture of affairs, on which our *all* depends, should be forced on by any gentlemen professing themselves friends to the cause of America, with such vehemence and spirit as appears on the part of the state of Newyork: And shall only add, that if the matter be thus pursued, we stand ready to appeal to God and the world, who must be accountable for the awful consequences that may ensue.

Signed at Philadelphia this 22d day of September, A. D. 1780.

IRA ALLEN,
STEPHEN R. BRADLEY.

No. VI.

Questions proposed by the Committee of Congress to the Agents on the Part of Vermont, with the Answers of the Agents, August 18, 1781.

Question 1st. ARE the boundaries set forth in the written propositions delivered in by the said Agents at this time, claimed by the state of Vermont as the lines of jurisdiction, the same as contained in the resolution of Congress of the 7th of August instant?

Answer. They are the same, with the addition of part of the waters of Lake Champlain, for the benefit of trade.

Q. 2d. What part do the people of Vermont mean to take as to the past expenses of the present war, and what aid do they propose to afford as to men and money to the common defence?

A. Such proportion as shall be mutually judged equitable after their admission to a seat in Congress; which has been at several different times officially proposed by agents on the part of Vermont.

Q. 3d. What are the ideas of the people of Vermont relative to the claim of private property, under grants or patents from Newhampshire, or Newyork previous to the present revolution?

A. Although the state of Vermont have not hitherto authorized any courts to take cognisance of such causes as respect titles of lands, nevertheless they have had, and still have it in contemplation to adopt such modes as the circumstances arising out of each case may justify, without adhering to the strict rules of law.

Q. 4th. What are the intentions of your constituents in regard to the patents that were granted on conditions of settlement within a given time, and which have been prevented by the claims of the people of Vermont, and the present revolution?

A.

A. No forfeitures have been taken by the ſtate of Vermont on any ſuch grants for nonperformance of conditions of ſettlement, and we conceive it to be the intention of our conſtituents to grant a further reaſonable time for fulfiling ſuch conditions.

Q. 5th. What are the number of inhabitants within the lines mentioned in the propoſitions above mentioned?

A. As the citizens of Vermont have not been lately numbered, we can therefore only eſtimate them at thirty thouſand, which we conceive to be nearly a true eſtimate.

Q. 6th. What quantity of land is contained within the ſaid bounds?

A. There has been no accurate ſurvey of the ſtate of Vermont, but we conceive it to contain about five millions of acres.

Q. 7th. What applications have been made either publicly or privately by the enemies of the United States, or their adherents, to draw off the people of Vermont from their affection to the United States of America?

A. The honourable committee are poſſeſſed of copies of Bev. Robinſon's letters incloſed in Brigadiergeneral Allen's letter of the 9th day of March laſt, to the then Preſident of Congreſs, and any private offers we cannot avouch for.

Q. 8th. In caſe the enemy ſhould attempt an invaſion of the northern frontiers, what aid as to men and proviſions could be raiſed in the ſtate of Vermont for the public defence (you can ſuppoſe the invaſion made in different quarters) and in what time?

A. The number of militia within the lines herein limited, we ſuppoſe to be about ſeven thouſand; are in general well armed and accoutred, and have ever ſhown themſelves ſpirited in caſe of alarms, &c. In regard to proviſions, the country is fertile, but new, and conſiderable emigrations from other ſtates to Vermont.—The legiſlature at their ſeſſion in October laſt, levied a tax on the inhabitants ſufficient for victualling one thouſand five hundred troops in the field for twelve months, and we are of opinion a larger ſtore may be in the ſame manner collected the enſuing autumn.

No. VII.

An Account of the rateable Property, and of the Number of Inhabitants in Vermont, at different Periods of Time.

BENNINGTON COUNTY.

Names of the Towns.	Value of the rateable property in the year 1781.	Value of the rateable property in the year 1791.	Numb. of Inhab. in 1792.
Bennington	£. 1189 8 0	£. 1162 8 0	887
Shaftſbury	911 8 0	1092 6 0	1999

Names

Names of the Towns.	Value of the ratable property in the year 1781.	Value of the ratable property in the year 1791.	Numb. of Inhab. in 1792.
Pownal	£. 6615 10 0	£. 6395 0 6	1746
Manchester	5170 3 0	6578 7 6	1276
Arlington	3503 5 0	4332 15 0	991
Rupert	2721 15 0	4929 15 6	1035
Dorset	2469 12 0	4016 15 0	958
Sunderland	1928 16 0	1932 15 6	414
Stamford	849 5 0	904 0 0	272
Sandgate	847 10 0	2677 5 0	778
Windhall			155
Bromly			71
Reedsborough			64
Woodford			60
Glastonbury,			34
Landgrove			31
Total	£. 45,111 16 0	£. 54,315 19 6	12,254

WINDHAM COUNTY.

Guildford	5836 10 0	6717 11 0	2434
Brattleborough	4999 10 0	5969 12 6	1589
Westminster	4982 5 0	6695 10 0	1601
Putney	4835 8 0	6138 10 0	1848
Halifax	3569 16 0	4640 10 0	1309
Rockingham	3363 0 0	4832 15 0	1235
Dummerston	2970 0 0	4978 0 0	1501
Marlborough	1881 10 0	2676 0 0	629
Wilmington	1874 0 0	2735 10 0	645
Hinsdale	1869 0 0	1908 0 0	482
Newfane	1687 6 0	2597 0 0	660
Townsend	1462 5 0	2403 16 0	670
Londonderry	886 10 0	1560 10 0	362
Whitingham	693 10 0	1358 5 0	442
Athens	442 17 0	1212 5 0	450
Thomlinson	200 0 0	1422 15 0	561
Jamaica	186 10 0	663 15 0	263
Wardsboro' N. D.		1758 10 0	483
Wardsboro' S. D.		1009 15 0	270
Somersett			111
Stratton			93
Johnson's Gore			49
Total	£. 41,738 17 0	£. 61,332 9 6	17,695

WINDSOR COUNTY.

Windsor	4085 8 0	6667 8 0	1542
Norwich	3659 15 0	5695 0 0	1158

Names

Names of the Towns.	Value of the rateable property in the year 1782.	Value of the rateable property in the year 1791.	Numb. of Inhab. in 1792.
Hartford	£. 3013 2 6	£. 4709 0 0	988
Woodstock	2770 5 0	5421 9 0	1605
Hartland	2549 10 0	6375 15 0	1652
Springfield	2139 10 0	3781 12 0	1097
Chester	1884 10 0	4703 5 0	981
Pomfret	1493 0 0	3182 15 0	710
Weathersfield	1279 10 0	4130 5 0	1146
Barnard	1027 0 0	3000 15 0	673
Sharon	893 0 0	3416 0 0	569
Royalton	845 0 0	3313 15 0	748
Cavendish	502 0 0	1572 5 0	491
Reading	358 12 0	2601 0 0	747
Andover	301 10 0	990 5 0	275
Bethel		1803 15 0	473
Bridgewater		1106 0 0	293
Rochester		845 15 0	215
Ludlow			179
Saltash			106
Stockbridge			100
Total	£. 26,781 7 6	£. 63,315 19 0	15,748

RUTLAND COUNTY.

Rutland	3975 10 0	6824 10 0	1407
Clarendon	3748 8 0	6083 0 0	1478
Tinmouth	3507 5 0	4410 0 0	935
Danby	3241 0 0	4456 15 6	1206
Pawlet	2507 5 0	6038 5 0	1458
Poultney	2296 5 0	4639 17 6	1121
Wells	1300 0 0	2089 0 0	622
Castleton	1257 0 0	3386 11 3	800
Wallingford	1200 0 0	2087 2 0	536
Pittsford	573 10 0	3411 15 0	850
Ira	515 0 0	1220 15 0	312
Shrewsbury	228 0 0	1155 10 0	383
Harwick	200 0 0	513 15 0	165
Middletown		2984 5 0	699
Orwell		2940 15 0	778
Brandon		2273 10 0	637
Fairhaven		2225 8 0	545
Benson		2179 15 0	658
Hubbardton		1692 0 0	404
Sudbury		1032 10 0	258
Chittenden		499 15 0	159
Pittsfield			44

Names

Names of the Towns.	Value of the rateable property in the year 1781.	Value of the rateable property in the year 1792.	Numb. of Inhab. in 1790.
	£.	£.	
Philadelphia			39
Medway			34
Killington			32
Total	£.24,549 3 0	£.61,644 14 5	15,561

ORANGE COUNTY.

Newbury	2880 19 0	3675 0 0	873
Thetford	1862 5 0	3363 15 0	862
Bradford	1450 0 0	2432 0 0	654
Stafford	1349 15 0	3048 0 0	845
Corinth	1075 10 0	1781 0 0	678
Barnet	651 5 0	2028 0 0	477
Fairlee	508 0 0	1419 5 0	468
Ryegate	427 0 0	994 15 0	287
Guildhall	416 10 0	730 6 11	288
Lunenburg	365 0 0	494 15 0	219
Maidstone	220 0 0	679 10 0	125
Peacham	214 10 0	1367 15 0	368
Randolph		3098 0 0	892
Brookfield		1672 0 0	421
Tunbridge		1641 5 0	487
Vershire		1483 15 0	489
Danville		1440 12 6	674
Williamstown		802 15 0	246
Braintree		789 0 0	221
Chelsea		790 13 6	289
St. Johnsbury		590 0 0	148
Montpelier		385 6 0	118
Topsham			162
Berlin			184
Cabot			122
Wildersburg			76
Washington			72
Brunswick			66
Littleton			62
Lyndon			59
Concord			49
Dewey's Gore			48
Calais			46
Groton			43
Northfield			40
Wheelock			33
Walden's Gore			32
Lemington			31

Names

Names of the Towns.	Value of the rateable property in the year 1781.	Value of the rateable property in the year 1791.	Numb. of Inhab. in 1791.
	£.	£.	
Canaan			19
Greensborough			19
Roxbury			14
Walden			11
Hardwick			8
Total	£.14954 17 6	£.32479 18 10	10,529

ADDISON COUNTY.

Cornwall	3314 15 0		826
Newhaven	2939 5 0		723
Salisbury	2850 12 6		446
Shoreham	2422 11 0		721
Bridport	2008 0 0		449
Monkton	1985 5 0		450
Addison	1915 10 0		401
Ferrisburg	1843 5 0		481
Leicester	1385 5 0		343
Whiting	1053 10 0		250
Vergennes	940 16 0		201
Middlebourough	859 0 0		395
Weybridge	817 5 0		175
Panton	781 0 0		220
Bristol			211
Kingston			101
Hancock			56
Total	£. 25,113 19 6		6,449

CHITTENDEN COUNTY.

Charlotte	2767 12 6		695
Williston	2206 0 0		471
South Hero	1979 5 0		537
Shelburne	1907 16 0		389
Jericho	1728 5 6		381
Hinesburg	1697 15 0		454
Cambridge	1534 5 0		359
Essex	1487 15 0		354
Georgia	1312 10 0		340
Burlington	1258 0 0		332
Milton	1041 0 0		282
St. Albans	914 0 0		256
Fairfax	878 10 0		354
North Hero	569 15 0		125
Colchester	541 10 0		137

Names

Names of the Towns.	Value of the ratable property in the year 1782.	Value of the ratable property in the year 1792.	Numb. of Inhab. in 1792.
	£.	£. 480 14 2	258
Fairfield		428 10 0	136
Newhuntington		300 0 0	102
Highgate		300 0 0	40
Hungerford		275 0 0	82
Johnson		278 0 0	70
Smithfield		176 10 0	88
Bolton		176 0 0	60
Middlesex		159 15 0	47
Isle Mott			446
Allburg			93
Waterbury			76
Swanton			65
Underhill			63
Westford			65
Waitsfield			57
St. George			47
Fletcher			46
Huntsburg			42
Hydespark			40
Starksborough			39
Duxbury			32
Wolcott			31
N. Huntington G.			24
Moretown			18
Minden			15
Cambridge Gore			13
Bakersfield			12
Elmore			10
Morristown			
Totalin the County.		24,358 8 2	7,301
Total in the State.	£.149,541 17 6	£.324,796 18 10	85,539

The above are the lists which were given in to the General Assembly, by the particular towns, in conformity to an act of the legislature.—In computing the value of the list taken in 1791, the prices of some of the capital articles were thus stated by the Assembly:—Improved land, ten shillings per acre. Neat cattle, one year old, fifteen shillings per head; two years old, thirty shillings per head; three years old and upwards, forty shillings per head: An ox, four years old, and upwards, three pounds. Horses, one year old, twenty shillings; two years old, forty shillings; three years old, and upwards, four pounds.—As these prices were scarcely one half of the current prices of those articles, the real value of the ratable property

of the ſtate, muſt have been double of what was ſet down in the liſts. It is probable this was alſo the caſe with the liſts taken in 1781.—But although neither of theſe liſts will give the exact value of the taxable property of the ſtate, at either of thoſe periods, they will give the increaſe, or the relative value of the taxable property at thoſe times: And we can clearly deduce from them, that from the year 1781, the whole taxable property of Vermont became doubled, in eight years and an half. In Virginia, the period at which the value of their lands and ſlaves taken conjunctly, doubles, is ſtated by Mr. Jefferſon, to be about twenty years.*

The number of towns repreſented in 1781, was ſixty three: The number repreſented in 1791, was one hundred and twenty ſix. Thoſe towns which are not taxed or repreſented, do not give in to the aſſembly any account of their taxable property.

No proper enumeration of the inhabitants of Vermont, was made, before the cenſus taken in 1791. The general eſtimations of the aſſemblies and agents before that time, were merely conjectural.—From a report, which Governor Tryon of Newyork made to the king of Greatbritain, of the ſtate of that province in the year 1771, it appears that he had procured a liſt of the inhabitants of each county in that province: Two of thoſe counties, Cumberland, and Glouceſter, were in Vermont; and contained the tract of country, which lies on the eaſt ſide of the green mountains, and is now formed into the counties of Windham, Windſor, and Orange. The number of people in thoſe counties in the year 1771, was as follows:

* Notes on Virginia, p. 118.

Whites.

Names of the Counties.	Whites. Males under fifteen.	Males above fifteen & under fixty.	Males fixty and upwards.	Females under fifteen.	Females above fifteen.	Total of Whites in each County.	Blacks. Males under fifteen.	Males above fifteen & under fixty.	Males fixty and upwards.	Females under fifteen.	Females above fifteen.	Total of Blacks in each County.	Total of both Whites and Blacks.
Gloucester.	1278	1185	81	1293	1521	7858	2	4	0	1	0	7	7865
Cumberland.	1071	1002	59	945	862	3938	0	6	1	2	2	11	3947

These two Counties, at that time, contained about two thirds of the people in the whole district. The whole number of inhabitants therefore in 1771, must have been about seven thousand.—In the Census taken in 1782, the numbers stood thus:

Counties.	Free white males of fifteen years and upwards, including heads of families.	Free white males under fifteen years.	Free white females, including heads of families.	All other free persons.	Slaves.	Total.
Addison,	1784	1664	2904	87		6449
Bennington,	3114	3213	5993	20	16	12254
Chittenden,	2256	1764	3761	23		7301
Orange,	2874	2768	4846	41		10529
Rutland,	3986	4092	7456	31		15565
Windsor,	4003	4157	7843	45		16748
Windham,	4418	4672	8545	58		17693
Total	22435	22328	40505	255	16	85539

ERRATA.

Page	line	for	read
58	11	*Labontau*	*Labontan.*
62	30	eight	eight tenths.
	37	dele eight.	
70	21	Amur	Amm.
76	4	and	are.
102	9	nquative	nquatic.
103	5	all	able.
	38	*Pfeudo*	*Oſcudo.*
104	28	Laaaa	Zaars.
112	13	*nibro*	*rubro.*
134	10	mode	rude.
142	31	fat	fort.
151	6	adapted	adopted.
154	21	band	mind.
160	9	to	for.
169	12	adapted	adopted.
196	36	have	leave.
241	22	was	were.
244	32	he	they.
252	20	free	three.
271	17	controverſy	correſpondence.
272	5	brided	bribed.
279	8	reſolution	reſolutions.
316	15	ore	ocre.
335	36	renew	revere.
371	26	more	none.

NAMES

NAMES OF THE SUBSCRIBERS.

SENATORS of the UNITED STATES.

HONOURABLE JOHN LANGDON, } N. Hampſhire,
Paine Wingate, }
Caleb Strong, } Maſſachuſetts.
George Cabot, }
Theodore Foſter, } Rhodeiſland.
Joſeph Stanton, }
Oliver Ellſworth, } Connecticut.
Roger Sherman, }
Stephen R. Bradley, 2 copies } Vermont.
Moſes Robinſon, }
Aaron Burr, 2 copies } Newyork.
Rufus King, }
Philemon Dickinſon, } Newjerſey.
John Rutherford, }
Robert Morris, Pennſylvania.
Richard Baſſet, } Delaware.
George Read, }
John Henry, Maryland.
James Munroe, 2 copies, Virginia.
John Brown, } Kentucky.
John Edwards, }
Benjamin Hawkins, } Northcarolina.
Samuel Johnſon, }
Pierce Butler, 12 copies, } Southcarolina.
Ralph Izard }
William Few, Georgia.

V E R M O N T.

His Excellency Thomas Chittenden, Governor.
The Honourable Peter Olcott, Lieutenantgovernor.
The Honourable Timothy Brownſon, }
Samuel Safford, }
John Strong, }
Ebenezer Walbridge, 12 cop. }
Jonathan Arnold, 2 copies, } Counſellors.
Paul Brigham, }
Ebenezer Marvin, }
Luke Knowlton, 8 copies, }
Thomas Porter, }

The

The Honourable Samuel Mattocks, Treaſurer.
Roſewell Hopkins, Eſq; Secretary of State.
Joſeph Fay, Eſq; Secretary to the Governor and Council.
The Honourable Gideon Olin, Speaker of the Houſe of Repreſentatives, 3 copies.
Samuel Knights, Chief Juſtice of the Supreme Court.
Elijah Paine, Juſtice of the Supreme Court.
Iſaac Tichenor, Juſtice of the Supreme Court.
Nath. Chipman, Judge of the Diſtrict Court, 2 copies.
Samuel Hitchcock, Eſq; Attorneygeneral.

A.

Aaron Adams.
Jeremiah Adams.
Edward Aiken.
Joſeph Allen.
Samuel C. Allen.
James Allen.
Caleb Allen.
Rev. Jonathan Allen.
Majorgeneral Ira Allen.
Levi Allen.
William Alvord.
Dr. Abel Allis.
Robert Anderſon.
Reuben Atwater, Eſq.
Capt. Eliſha Averil.
Elijah Avery.

B.

Benjamin P. Baldwin.
Frederic Baldwin.
William Baker.
Tiffey Ballard.
John Bancroft.
Rev. Thomas Barnard.
Jonathan Barrett.
Thomas Barrett.
John Barron.
Dr. Preſcott Barron.
Frye Bayley, Eſq.
John G. Bayley, Eſq.
Iſaac Bayley, Eſq.
Joſeph Bayley.
Samuel Beach.
Moody Bedel, Eſq.
Jonathan Bell, Eſq. 2 copies.
John Benedict.
Moſes Bennett.
Alfred Bingham.
Silas Bingham.
Solomon Bingham.
Elijah Blake.
John W. Blake.
Rev. Enos Bliſs.
Charles Boyle.
Joſeph Bradford.
Iſaac Brevoort.
John Bridgman, Eſq.
Rev. Aaron Jordan Booge.
Samuel Brown.
Proſper Brown.
Bryant Brown, Eſq.
Ebenezer Brown, Eſq.
Eliſha Brown.
Daniel Buck, Eſq.
Major Eljas Buel.
Thomas Bull.
Abraham Burnham, Eſq.
John Burnam.
Benjamin Burt, Eſq.
Jonathan Burt.

C.

Joſeph Cable.
Doctor Joſeph Caldwell.
Dr. Alex. Campbell, 2 copies.
Dr. John Campbell.
Matthew Carey, 12 copies.
Philip Carigain.
Biſſel Caſe.
Louden Caſe.
Abbe Cady.

Nathaniel

Nathaniel Chamberlain.
William Chamberlain.
Gardner Chandler, Eſq.
Jeſſe Chandler.
Thomas L. Chandler.
Iſaac Chatterton.
Dr. Cyrus Chipman.
Daniel Chipman, Eſq.
Darius Chipman, Eſq.
Lemuel Chipman, Eſq.
John Chipman, Eſq.
Samuel Chipman, Eſq.
Col. James Claghorn.
Eleazar Claghorn, Eſq.
Joſeph Clark.
Oaias Clark.
John Clayton.
Edward Clifford.
Capt. John Cobb.
Samuel Cobb.
Brigadiergenl. Eli Cogſwell.
William Coit.
John Cook.
Caleb Cooley.
Stephen Coolidge.
Oaias Crampton.
Samuel Cutler, Eſq.
John Curtis.
Zebina Curtis.

D.

Ezra Dean.
William Deniſon.
Elijah Dewey, Eſq.
Ormond Doty.
Peleg Douglaſs.
Moſes Dow, Eſq.
Jaſon Duncan.
Iſaac Duffs.
Joſiah Dunham, 12 copies.
Salmon Dutton, Eſq. 2 copies.

E.

Iſaac Ellis.
Peter Evans.
Zedoc Everiſt.
James Enos.
James Enos, jun.
Majorgeneral Roger Enos.
James Ewing, Eſq.

F.

Rev. Daniel Farrand.
Daniel Ferrand, Eſq.
David Fiſk.
Moſes Fiſk.
John Fitch, Eſq.
Aſaph Fletcher, Eſq.
Samuel Fletcher, Eſq.
Mills D. Forſit, Eſq.
Jabez Foſter.
Rev. Robert Fowle.
Col. John Fuller.

G.

Jonas Galuſha, Eſq.
Elijah Garfield.
Jonathan Gates.
Willeby Goodwin.
Nathaniel Gove.
John A. Graham, Eſq. 2 cop.
Aſa Graves.
Benjamin Green, Eſq.
Iſaac Green.
Nathaniel Green, Eſq.
Sylvanus Gregory.
John Griffin, Eſq.

H.

Nathan Hale, Eſq.
William Hale.
Lot Hall, Eſq. 2 copies.
Joel Hamilton.
Dr. Z. Hamilton.
H. Hardie, 12 copies.
Ezekiel Harmon.
Joel Harmon
William C. Harrington, Eſq.
Alex. Harvey, Eſq. 2 copies.
Dr. Aaron Haſkins.
Anthony Haſwell, 12 copies.
Reuben Hatch.
William Havendran.
Joſeph Hawley.
Col. Udny Hay.
Rev. Lemuel Haynes.
William Hennefy.
Benjamin Henry.
Frederic Hill, Eſq.
Moſes Hinman
Lyman Hitchcock.

David

David Hoit.
Elijah S. Hollister.
Jesse Hollister.
Seth Holt.
John Hopkins.
Lucius Hubbard, Esq.
John Hubbard.
Jonathan H. Hubbard, Esq.
Arad Hunt, Esq.
John Hunt, Esq.
John Hurd, Esq. 12 copies.
Richard Hurd.
Robert Huston.
Aaron Hutchinson, Esq.

J.

Stephen Jacobs, Esq.
Leonard Jewett.
Asa Johnson, Esq.
Col. Thomas Johnson.
Perez Jones.
Ebenezer W. Judd, Esq.

K.

Bradford Kellogg.
Rev. Dan Kent.
Jacob Kent.
Col. Stephen Keyes.
William Kilburn.
Nathaniel Kingsley.
Aaron Kinsman.
Ephraim Kirby, Esq.
Elijah Knight.
Calvin Knowlton, Esq.

L.

Rev. Nathaniel Lambert.
Luther Langdon.
Reuben Langdon.
Samuel Lathrop, Esq.
John Law, Esq.
Jesse Leavenworth, 3 copies.
George Leonard.
William Leverett.
Beriah Loomis, Esq.
Elijah Lovett.
John Lovett, Esq.
Cornelius Lynde, Esq.
Rev. Asa Lyon.
James Lyon.
Col. Matthew Lyon.

M.

Samuel McCluer.
Asa McFarland.
John McNeil, Esq.
Jeremiah Mason, Esq.
Joel Marsh.
Nicholas S. Masters, Esq.
Capt. Isaac Meacham.
Moulton Morey, Esq.
Brigadiergnl. Lew. R. Morris.
James Morse.
Constant Murdock.
Benjamin Muzzy.
W. Mynderse.

N.

John Nanton.
Nathan Nelson.
Oliver Noble.

O.

David Oaks.
Elias Olcott, Esq.
Henry Olin.
Jonathan Ormsby.
Nathan Osgood, 2 copies.

P.

Josiah Page.
Benjamin Paine.
Amasa Paine, Esq.
Gamaliel Painter, Esq.
Col. Stephen Pearl.
Chauncy Pier.
William Pike.
John Pomroy.
Asa Porter, Esq.
Benjamin Porter.
Dr. Ezekiel Porter.
John Porter, Esq.
Joseph Porter, jun.
Rosewell Post.
Dr. Cephas Prentiss.
Samuel Prentiss.
Nathaniel Preson.
Joseph Prince.

R.

Martin Reed.
Dr. Daniel Reed.
Stephen Rice.
Amos Richardson.

Joshua

Joſhua Ricker.
John Ripley.
Phineas Ripley.
Chriſtopher Roberts.
Joel Roberts.
Hon. Jeſſe Root.
William Round.

S.

Silas Safford, Eſq.
David Sanderſon.
Major James Sawyer.
Col. Thomas Sawyer.
Andrew Selden, Eſq.
Joſeph Selden.
Aaron Sexon.
David Sheldon.
Nathaniel Sheldon.
Samuel Shepardſon.
John Shumway, Eſq.
Rev. Samuel Shuttleworth.
Walter Sloan.
Jacob Smith.
John Smith.
Jonathan Smith.
Iſaac Smith, Eſq.
Iſrael Smith.
Simeon Smith, Eſq.
Prince Soper.
Col. John Spafford.
Simeon Spencer.
Eliakim Spooner, Eſq.
Truman Squier.
John Stacey.
Elias Stevens.
Abijah Stone, Eſq.
David Stone.
Phineas Stone.
William Storer.
Seth Storrs, Eſq.
Chipman Swift, Eſq.

T.

Mansfield Taplin, 2 copies.
Aſa Tenny.
Eliſha Thayer.
Rev. Lathrop Thomſon.
Thomas Thomſon.
Stephen Thorn.
Timothy Todd.
Thomas Toleman.
Col. Orange Train.
Nahum Traſk.
George Trimble.
Turell Tufts.

U.

James Underhill.

W.

Samuel Walker.
Samuel Ward.
Azel Waſhburn.
Calvin Webb.
Jehiel Webb, Eſq.
Dr. Joſhua Webb.
Noah Webſter, Eſq.
Jabez H. Weld.
Shipley Wells.
Elijah Weſt.
Jedediah Weſt.
Eli Wheeler.
Aſa Wheelock, Eſq.
John White, Eſq.
Nathaniel White.
Dr. Samuel White.
James Whitelaw, Eſq. 2 cop.
Rev. Samuel Whiting.
Benjamin Whitman.
John Whitman.
Brigadiergenl. Dav. Whitney.
John Whitney.
James Whitney.
Lemuel Whitney.
Richard Whitney, Eſq.
Elias Willard, jun.
Samuel Williams, Eſq.
Dr. James Whitherel.
Enoch Woodbridge, Eſq.
Joſeph Woodward.
Eleazer Wright.

FINIS.